

NAVAL FIGHTERS NUMBER SIXTY - SEVEN

GRUMMAN
F9F-6P/8P
PHOTO-COUGAR



BY STEVE GINTER

PUBLISHERS NOTE:

The Grumman Cougar like the Panther series before it will be published in several volumes. This, the second volume covers the Cougars development as a photo-reconnaissance aircraft. The first volume by Corwin "Corky" Meyer, covered the development, testing, structures, and equipment of the F9F-6/7/8 Cougar and the Blue Angels. It just touched on the F9F-6P/8P photo Cougars and the F9F-8T/TF-9J two-seat aircraft. Two more volumes will follow. #68 will cover the F9F-8T/TF-9J two-seaters, and #69 will cover the single seat F9F-6/7/8/8B Navy and Marine fighter squadrons including reserve and utility squadrons.

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FRONT COVER: USS Shangri-La (CVA-38) based LTJG Al Francher in VFP-61 Det C F9F-8P BuNo 144398 over Hawaii in 1958. (CDR Bo Masek via Bob Lawson) **BACK COVER:** Top, USS Kearsarge (CVA-33) based VFP-61 Det J in 1957. (USN) Middle, VMVJ-3 F9F-8Ps in 1957 during carrier qualifications. (via Lawson) Bottom, VFP-61 F9F-8P BuNo 144405 on the USS Intrepid (CVA-11). (via Lawson)



Below, the first Marine turboprop tanker was this Lockheed built GV-1. It is seen here completing its first hook-up with a receiving aircraft, a white and orange F9F-8P BuNo 144410 on bailment to Lockheed. The photo was taken through the porthole of an Air Force C-130B near Marietta, GA. (Lockheed)



GRUMMAN F9F6P/8P PHOTO - RECON AIRCRAFT



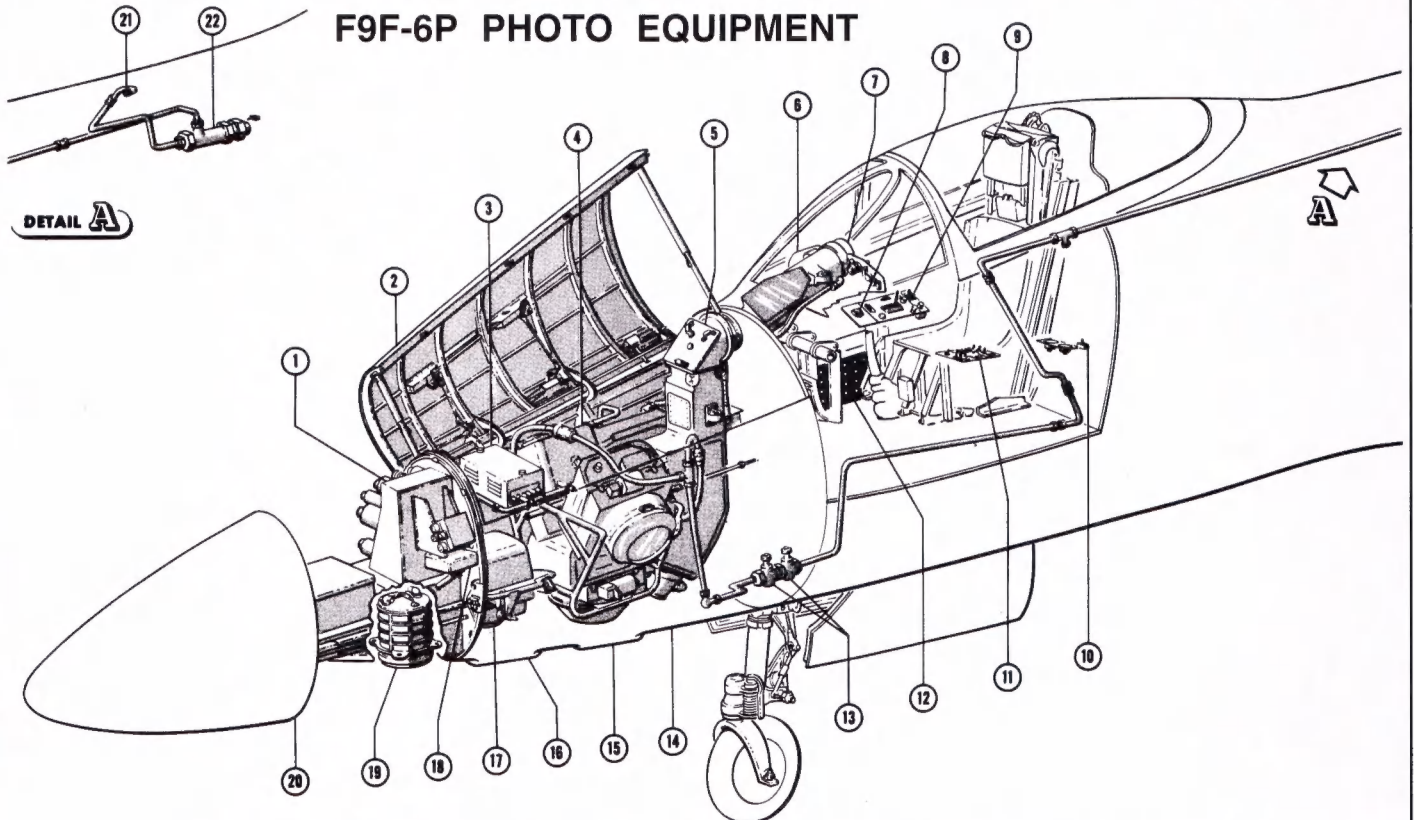
INTRODUCTION

Sixty F9F-6 airframes were fitted at Grumman with vertical, lateral and oblique Fairchild cameras and delivered as F9F-6Ps between June 1954 and March 1955. They were similar to

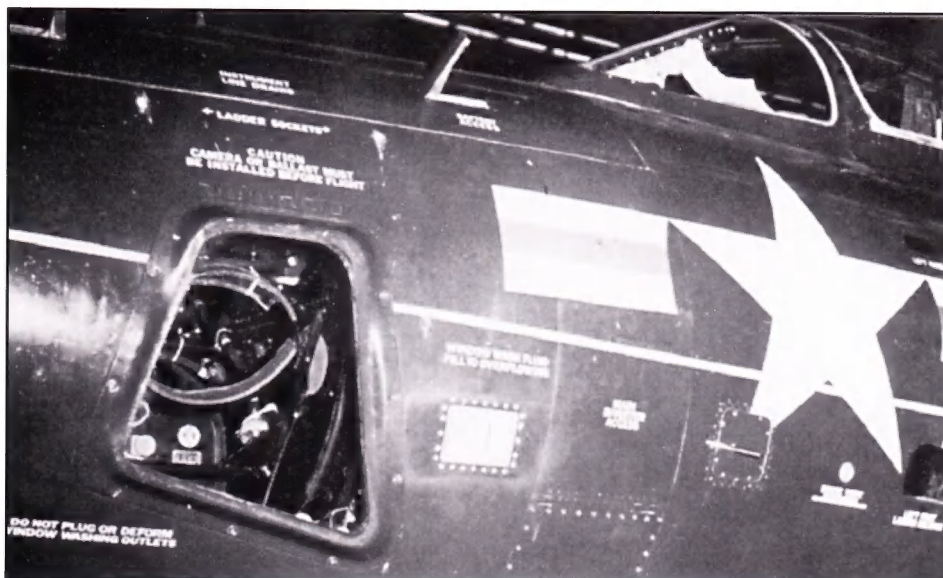
the camera installation in production F9F-5P Panthers. The prototype F9F-6P was BuNo 127473 and the sixty aircraft were BuNos 127473/92, 128295/310, 131252/55, and 134446 /65. Production of the F9F-6P commenced on 19 June 1954 and ended

Above, Prototype F9F-6P BuNo 127473 shows the photo-nose installation which was almost identical to the installation on the F9F-5P (see Naval Fighters Number 59). Note open blow-in door on upper-rear fuselage. (SDAM)

F9F-6P PHOTO EQUIPMENT



- | | | |
|---------------------------------------|--|---|
| 1. Photo Recorder | 9. Right Console - Auto Pilot Controls | 18. Photo Recorder Gun Camera |
| 2. Camera Access Hatch | 10. Camera Compartment Heat Control | 19. Scanner |
| 3. Sonne Amplifier | 11. Left Console - Camera Controls | 20. Sliding Nose Section |
| 4. Trimetrogon Camera in Aft Bay | 12. Circuit Breaker Panel | 21. Connection to Engine Air at sta 258 |
| 5. Viewfinder | 13. Relief Valves | 22. Jet Air Ejector Pump |
| 6. Viewfinder Controls and Indicators | 14. Viewer Compartment | |
| 7. Viewfinder Eyepiece | 15. Aft Camera Bay Window | |
| 8. Interval Computer | 16. Forward Camera Bay Window | |
| (Multi-Camera Interval Control) | 17. K-17-6 in. Camera in Fwd Bay | |



Above, left side F9F-6P camera window without camera being installed. Lettering above window reads: "Caution camera or ballast must be installed before flight". The lettering below reads: "Do not plug or deform window washing outlets". At the right of the window the lettering reads: "Window wash fluid fill to overflowing". (Grumman) Below, open right side camera window with camera installed. (National Archives)



on 25 March 1955. The F9F-6Ps joined the two Navy (VC-61/62) and two Marine (VMJ-2/3) squadrons that were flying the F9F-5P and were quickly replaced by the very distinctive and more capable F9F-8P.

F9F-6P COUGAR PHOTOGRAPHIC EQUIPMENT

The nose section of the F9F-6P was divided into a forward and aft camera bay and a viewfinder bay for camera and camera controls installations. The photographic equipment included cameras, camera mounts, camera controls, a viewfinder and the necessary tubing and wiring. A camera vacuum system and a viewfinder dehydrator system were also included. Camera positioning, camera operation and viewfinder operation were completely automatic and were controlled from the cockpit. Access to the camera compartment was through the camera compartment hatch, two camera-side windows, and the door and step assembly and adjacent access hole.

FORWARD CAMERA BAY

Equipment	Type	Optical Axis
Scanner	Fixed	Vertical
S-7-S Sonne	Fixed	Vertical
Continuous Strip Camera or		
K-17-12 inch or	Fixed	Vertical
K-17-6 inch or	Fixed	Vertical
CA-8		

AFT CAMERA BAY

Equipment	Type	Optical Axis
K-18-24 inch with A-7 or A-8 magazine or	Rotary	3°, 15°, 90° below horizon
K-17-24 inch with A-5 or A-9 magazine or	Rotary	3°, 15°, 90° below horizon
Three K-17-6 in.	Fixed	Trimetrogen

On the last twenty aircraft, BuNos 134446-134465, the forward camera bay was designated station one and the aft camera bay as station two. In addition to the equipment listed above, the following cameras could be installed in these airplanes.

CAMERA STATION ONE

Equipment	Type	Optical Axis
K-17C-6 inch	Fixed	Vertical
K-17C-12 inch	Fixed	Vertical
T-11	Fixed	Vertical

CAMERA STATION TWO

Equipment	Type	Optical Axis
CAS-2a	Fixed	25°, 35° or 90° below horizon
K-17C-6 inch	Fixed	Trimetrogen
K-37 (modified)	Rotary	Vertical
K-38-24 inch	Rotary	Vertical
K-38-36 inch	Rotary	Vertical
K-17C-6 inch	Rotary	3°, 15° or 90° below horizon
K-17C-12 inch	Rotary	3°, 15° or 90° below horizon
K-17C-6 inch	Fixed	Vertical
K-17C-12 inch	Fixed	Vertical

On these twenty aircraft, BuNos 134446-134465, the following camera related equipment was installed:

Equipment	For	Location
Mast. Cont. Unit CCS-1	All Camera	Cabin
Photo Cont. Unit STA.1	All Camera	Cabin
Photo Cont. Unit STA.2	All Camera	Cabin
Flare Ejector Cont. Pnl.	K-37	Cabin
Ejector Pods	K-37	B/Racks
A-6, B-4 Flash	K-37	B/Racks
Cartridge Ejector		
Scanner	CAS-2a/K-17C	Fuse.
Scanner Converter	CAS-2a/K-17C	Fuse.
Servo Power Unit	CAS-2a, K-37	Fuse.
	K-17C	
Photo Observer		Cabin
Shutter Trip Control	K-37	Fuse.
Overrun Control	K-37	Fuse.
Film Failure Lts.	All Camera	Cabin
Operation Ind. Lts.	All Camera	Cabin
Oblique Sights	CAS-2a, K-37	Cabin
	K-17C	
Computer	CAS-2a	Cabin

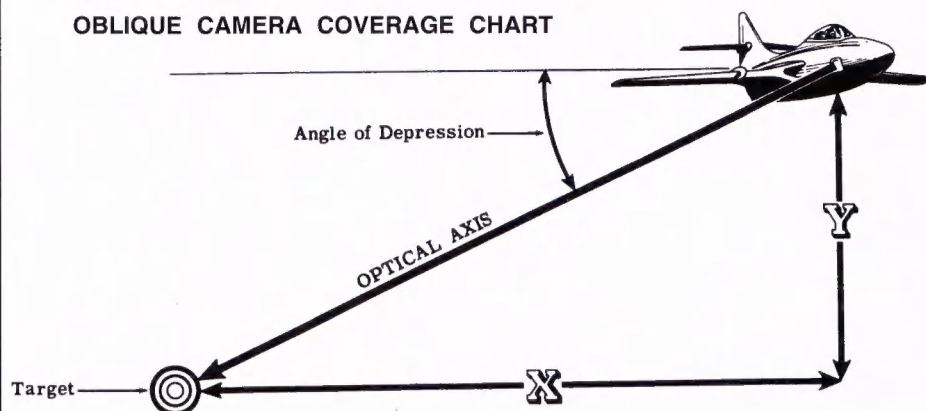
The following equipment was installed on BuNos 127473-131255:

CK-1 Cont. Unit	S-7-S Sonne	Cabin
Amplifier		Fuse.
Interval Control	K/CA-8	Cabin
Film Break W/Light		Cabin
3-digit Subtractive		Cabin
Type Counter		
Camera Sel. Switches		Cabin
Main Cam. Pwr. Switch		Cabin
Camera Pos. Sel. Switch		Cabin
for Rotary Mount and Position Lights		
Jet Air Ejector		Fuse.
Amplifier for Multi-		Fuse.
Camera Interval Controller		
Camera Compartment	All Camera	Cabin
Temperature Indicator		
Viewfinder A-10VF	All camera	Cabin

A photo recorder, located on the forward nose bay deck, included the following equipment:

Radio Altimeter Repeater Indicator
Sensitive Altimeter

OBLIQUE CAMERA COVERAGE CHART



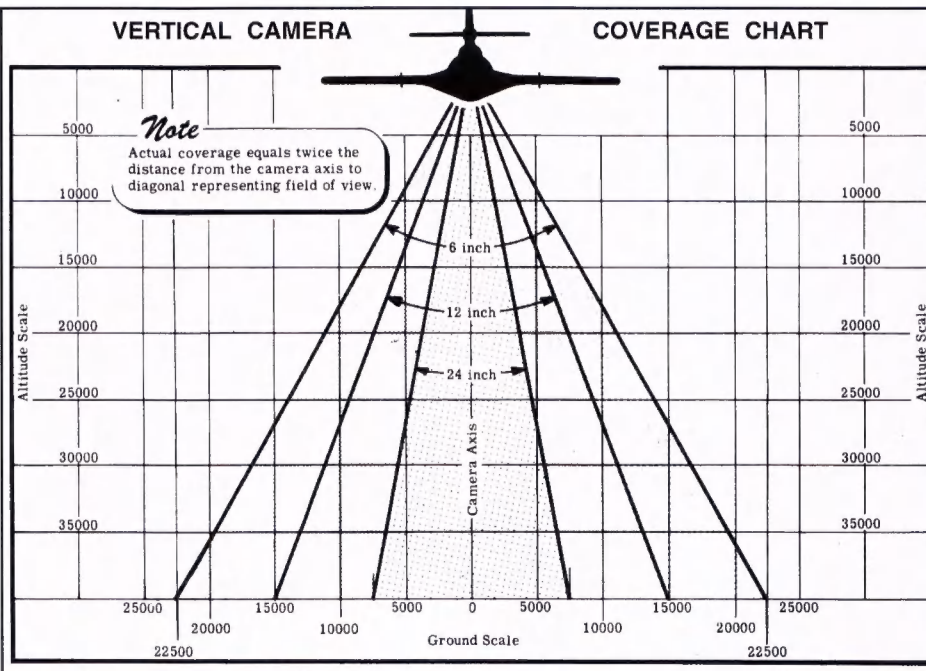
To find required Target Distance X for an Altitude Y not shown in chart, add $\left\{ \begin{array}{l} 0.31 \text{ nautical miles for } 3^\circ \text{ Camera} \\ 0.07 \text{ nautical miles for } 15^\circ \text{ Camera} \\ 0.028 \text{ nautical miles for } 30^\circ \text{ Camera} \end{array} \right\}$ for every additional 100 feet of altitude.

RELATIONSHIP OF ALTITUDE TO DISTANCE OFF TARGET

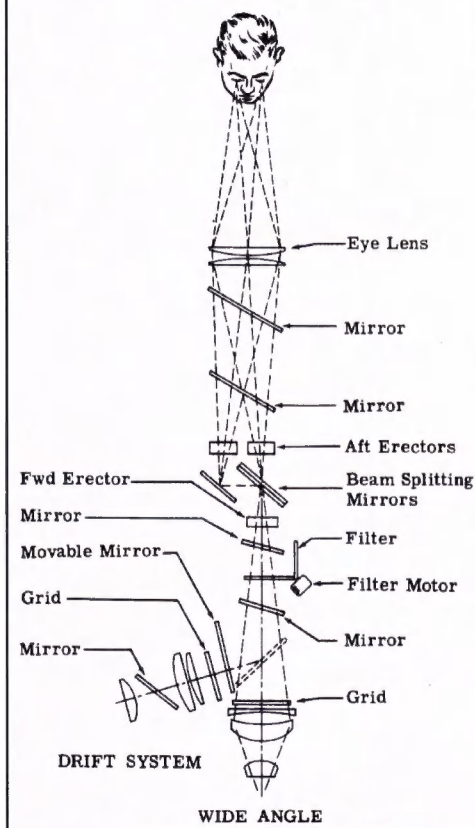
3° Depressed Oblique Camera		15° Depressed Oblique Camera		30° Depressed Oblique Camera	
Altitude (feet) Y	Distance off Target (nautical miles) X	Altitude (feet) Y	Distance off Target (nautical miles) X	Altitude (feet) Y	Distance off Target (nautical miles) X
100	0.31	300	0.2	400	0.1
200	0.62	600	0.4	1000	0.3
300	0.93	1000	0.6	2000	0.56
400	1.24	1500	0.95	5000	1.4
500	1.56	2000	1.23	10000	2.8
600	1.88	3000	1.84	15000	4.2
700	2.19	5000	3.0	20000	5.6
800	2.48	8000	4.9	25000	7.0
900	2.79	11000	6.75	30000	8.4
1000	3.14	14000	8.59	35000	9.8
2000	6.28	17000	10.43	40000	11.2
3000	9.42	20000	12.30	45000	12.6
4000	13.06	23000	14.14	50000	14.0
5000	15.70	26000	16.0		
6000	18.84	29000	17.84		
7000	21.98	32000	19.68		
8000	25.12	35000	21.52		
9000	28.26	38000	23.36		
10000	31.40	41000	25.20		
		44000	27.0		
		47000	28.88		
		50000	30.72		

VERTICAL CAMERA

COVERAGE CHART



F9F-6P VIEWFINDER SYSTEM



Airspeed Indicator
Flasher and Relay Unit
Remote Compass Repeater Indicator
Clock

Outside Air Temperature Indicator
Film Speed Indicator
Three Digit Subtractive-type Counter
Camera AN-N-6A (with 17mm lens)

NIGHT CAMERA INSTALLATION:

The night photography installation incorporated a K-37 camera with an MA-10a magazine and 12-inch lens cone at a 90° angle in the station two camera bay. The shutter trip control for the K-37 camera was installed in the station one camera bay.

F9F-6P BALLAST:

Approximately 100 pounds of ballast was installed between station 12 and 25. This ballast was considered fixed equipment and was included in the empty weight of the airplane. It assured that the CG of the airplane stayed within the proper range when the heavy camera installation was used. An additional 120 pounds of ballast was included under useful load. This additional ballast was installed when the lighter camera installations were used and was removed when the heavier installation was

used. The 120 pounds of ballast was bolted underneath the fixed ballast.

CAMERA WINDOW WASHING SYSTEM:

The camera windows were automatically washed at the beginning of each flight to remove salt spray or dust that might distort an image seen through the windows. A one-gallon wash fluid tank was installed on a shelf on the left side, immediately forward of the fuselage nose section door and step assembly. When the airplane became airborne, a landing gear nutcracker switch operated the washing system which was then shut off by a low water level float valve switch.

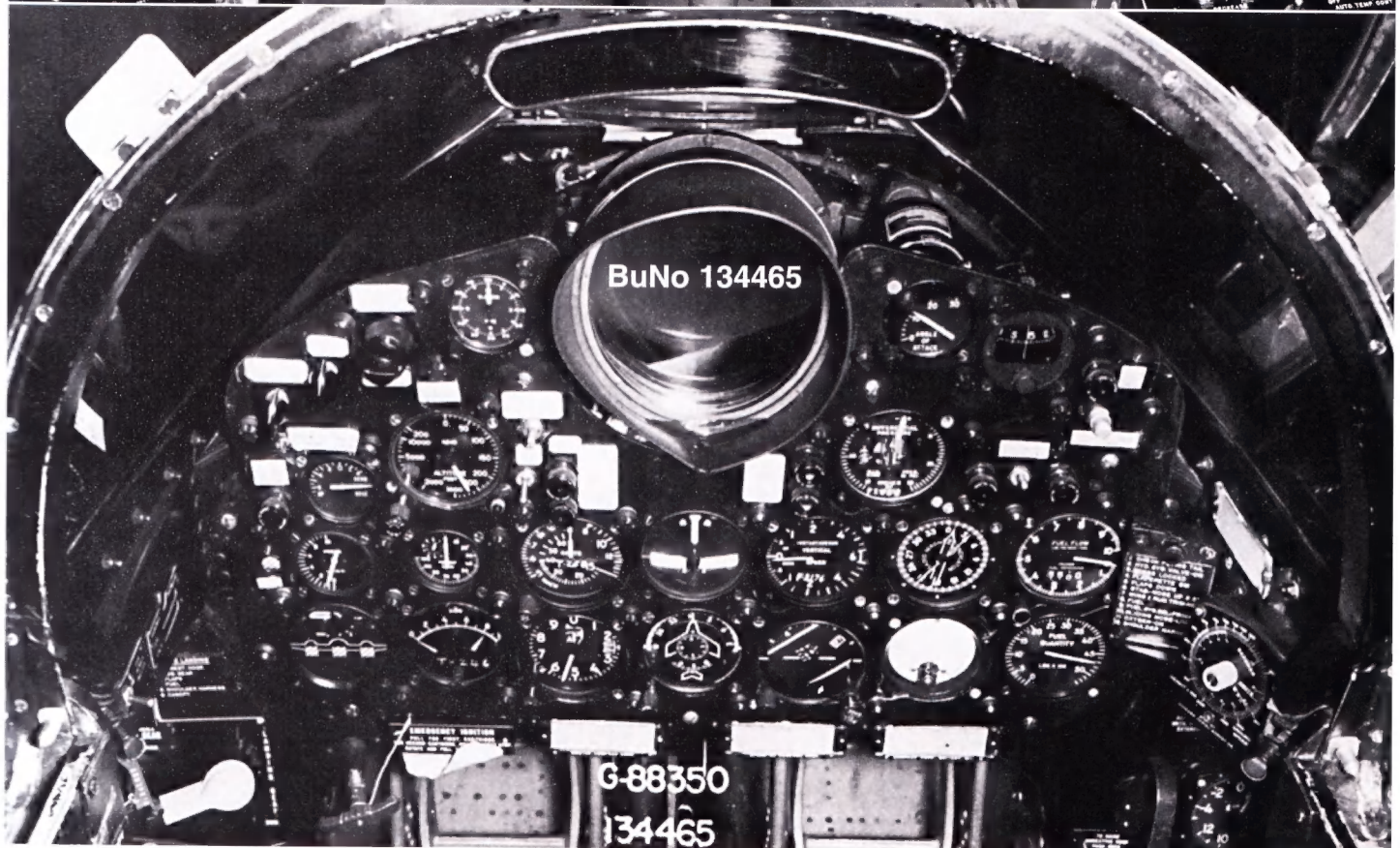
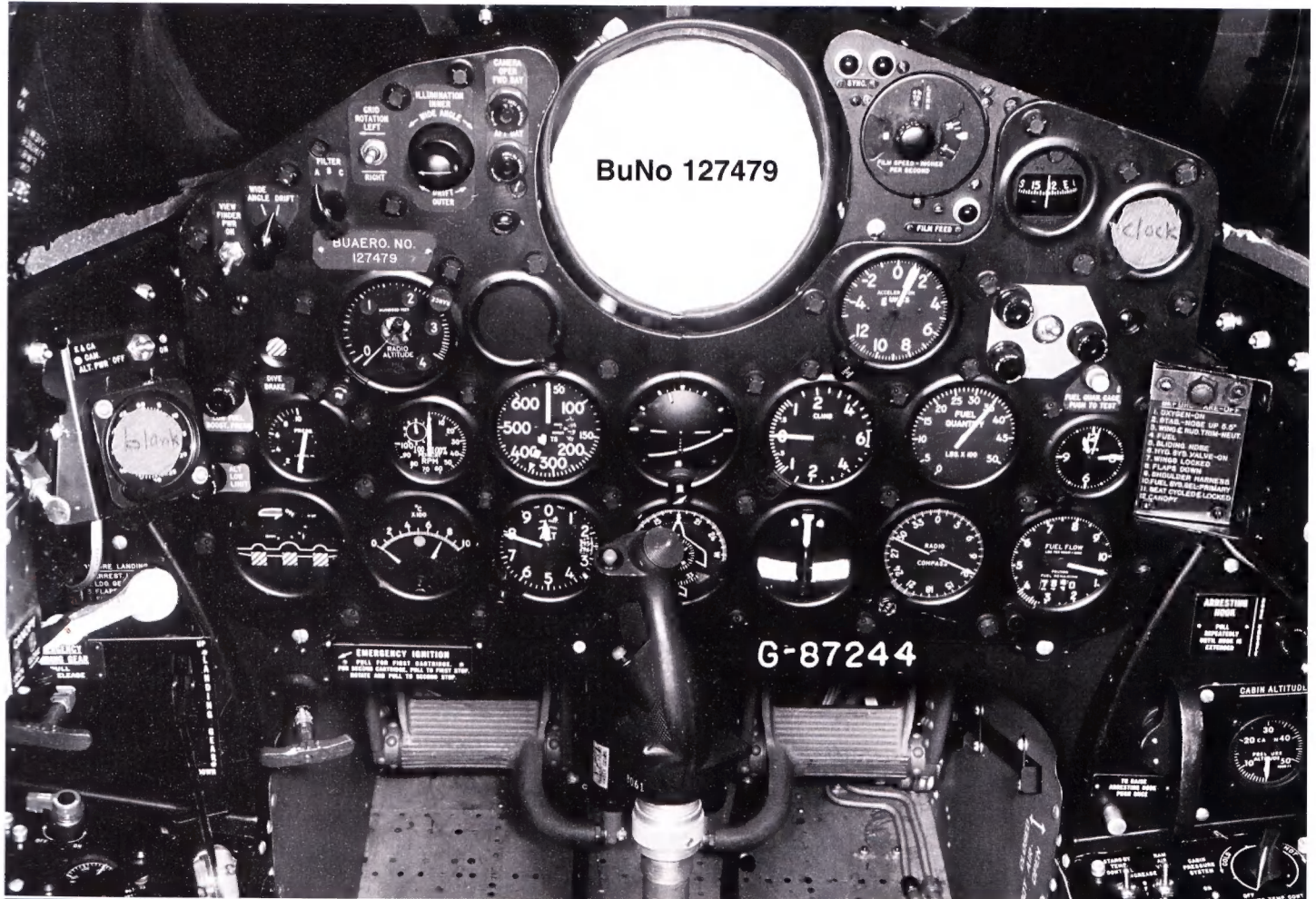
CAMERA WINDOW COVERS:

Left and right window covers were available to protect the windows during ground operations. Each cover was painted insignia red and fitted with a three-inch square by 1/4-inch rubber pad cemented on the inner side at the center to contact the glass, and a sponge rubber seal running completely around the edge to cushion the cover against the window.

F9F-6P CAMERA SPECIFICATIONS

TYPE	K-17-6 Inch	K-17-12 Inch	K-17-24 Inch	CA-8	K-18-24 Inch	S-7-S	
Focal Length	6 inch	12 inch	24 inch	6 inch	24 inch	6 inch	100 mm
Lens Cone Angle	72°	41°	30°	72°	42°	58°	72°
Shutter Speeds (sec)	1/50 1/100 1/200 1/300	1/75 1/150 1/225	1/50 1/100 1/150	1/100 1/200 1/300	1/50 1/100 1/150	Adjustable Slit	
Diaphragm Stops (f value)	f6.3 f8 f11 f16 f22	f5 f6.3 f8 f11 f16 f22	f6 f8 f11 f16	f6.3 f8 f11 f16 f22	f6 f8 f11 f16	Automatic Adjustment	
Type of Magazine	A-5-A or A-9	A-5-A or A-9	A-5-A or A-9	MA-6	A-7 or A-8	Component Part of Camera	
Negative Size	9 x 9	9 x 9	9 x 9	9 x 9	9 x 18	Strip 9-1/2 inch x 200 feet	
Film Capacity	A-5-A - 200 feet 250 exposures A-9 - 390 feet 485 exposures	same	same	250 exposures	A-7 45 exposures A-8 - up to 250 exposures	Continuous Strip	
Camera Weight (Loaded)	A-5-A Magazine 71.8 lb A-9 Magazine 78.9 lb	A-5-A Magazine 66.8 lb A-9 Magazine 73.9 lb	A-5-A Magazine 88.8 lb A-9 Magazine 95.9 lb	40 lb	A-7 Magazine 89.7 lb A-9 Magazine 110.4 lb	With Scanner 108.5 lb	
Film Loading Note	Total Darkness	Total Darkness	Total Darkness	Total Darkness	Total Darkness		

F9F-6P INSTRUMENT PANEL

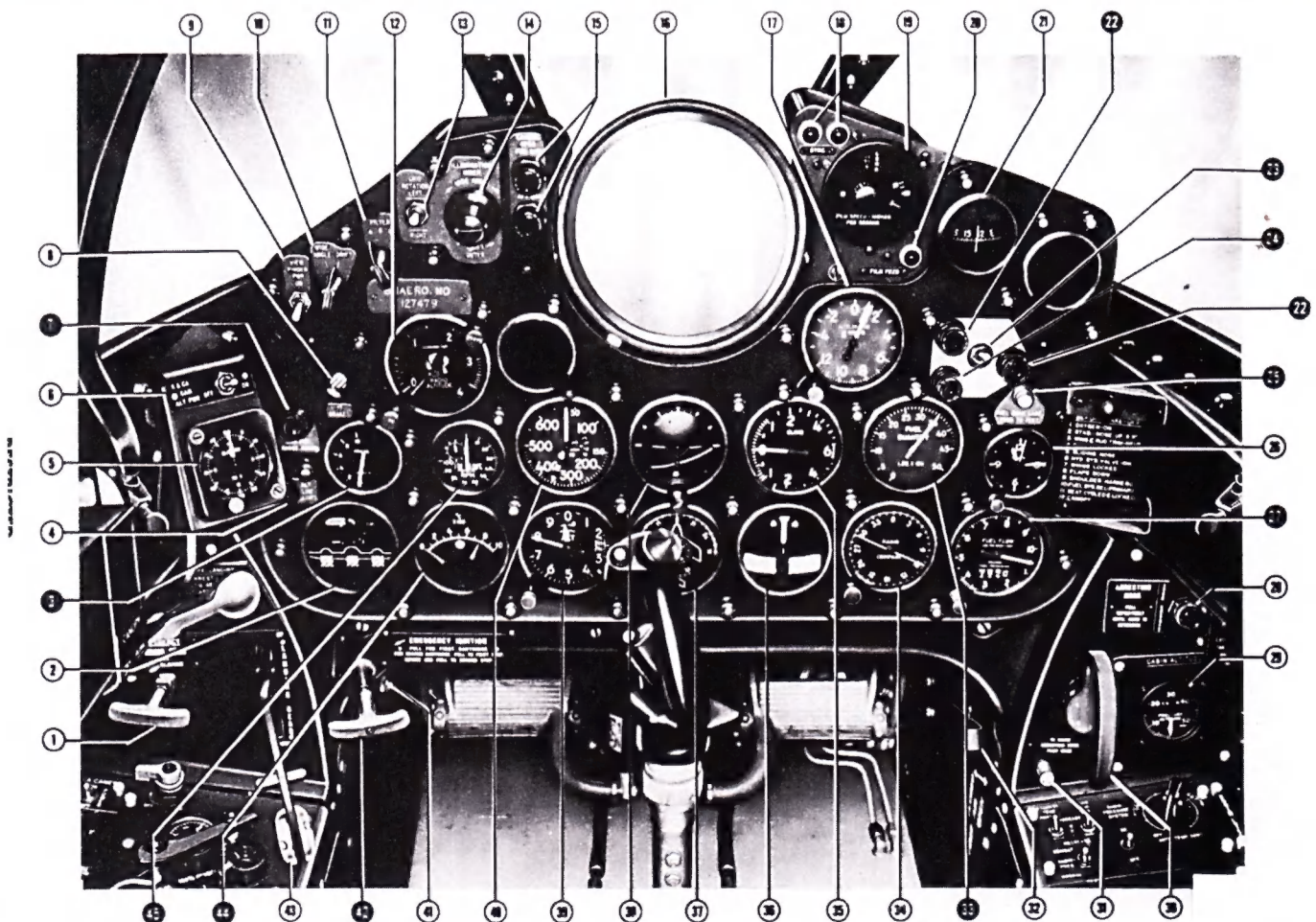


F9F-6P INSTRUMENT PANEL

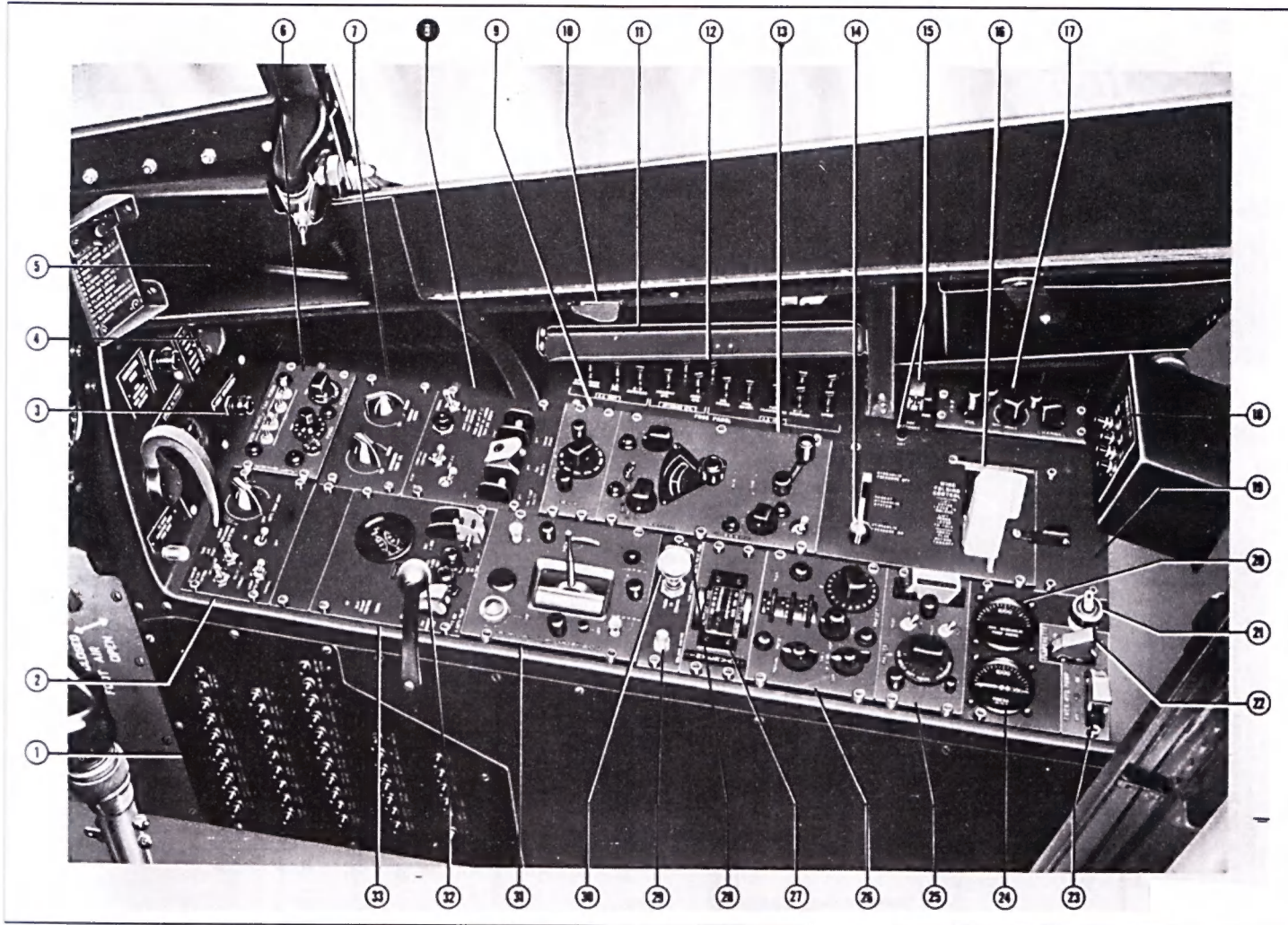
- 1.) Emergency (Air) Gear Handle
- 2.) Gear and Flaps Position Indicator
- 3.) Oil Pressure Indicator
- 4.) Radio Altimeter Low Level Warning Light
- 5.) Elapsed Time Clock
- 6.) K & CA Camera Alternate Power Switch
- 7.) Low Fuel Boost Pressure Warning Light
- 8.) Speed Brake Position Indicator
- 9.) Viewfinder Power Switch
- 10.) Wide Angle-Drift Selector Switch
- 11.) Filter Selector Switch
- 12.) Radio Altimeter (see note)
- 13.) Grid Rotation Switch
- 14.) Elapsed Time Clock
- 15.) Camera Operating Indicator Lights
- 16.) Viewfinder's Eyepiece
- 17.) Accelerometer
- 18.) Strip Camera Synchronization Lights
- 19.) Strip Camera Film Speed Indicator
- 20.) Strip Camera Film Feed Light
- 21.) Stand-by Compass
- 22.) Fire Warning Lights
- 23.) Fire Warning Light Circuit Test Switch
- 24.) Low Fuel Level Warning Light
- 25.) Fuel Quantity Indicator Push-to-Test Switch
- 26.) Clock
- 27.) Fuel Flowmeter

- 28.) Arresting Hook Position Warning Light
- 29.) Cabin Altimeter
- 30.) Arresting Hook and Barrier Guard Control Handle
- 31.) Hook Up Push Button Switch
- 32.) Cabin Air Conditioning Foot Outlet Control
- 33.) Fuel Quantity Indicator
- 34.) Radio Compass Indicator
- 35.) Rate-of-Climb Indicator
- 36.) Turn and Bank Indicator
- 37.) G-2 Remote Compass Indicator
- 38.) Fast Erecting Gyro Horizon Indicator
- 39.) Altimeter
- 40.) Maximum Allowable Airspeed Indicator
- 41.) Landing Gear Control, Down Lock Solenoid, Manual Release Knob
- 42.) Airstart Emergency Igniter System Control Handle
- 43.) Landing Gear Control and Landing Gear Unlocked Warning Light
- 44.) Tailpipe Temperature Indicator
- 45.) Tachometer

NOTE: Radio altimeter AN/APN-1 and low limit warning light are installed on BuNos 127475-127488. Radio altimeter AN/APN-22, which incorporated a low limit warning light, is installed on airplanes BuNos 127489 and subsequent. On F9F-6P airplanes with the interim flying tail modification installed, an absolute stabilizer position indicator was installed on the upper left side of the instrument panel.



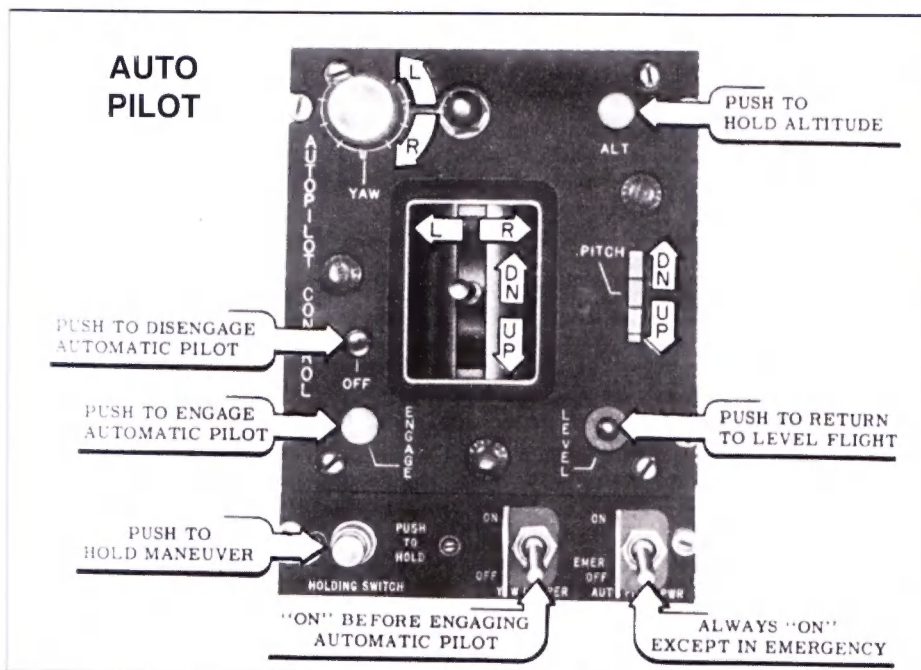
F9F-6P RIGHT - HAND CONSOLE



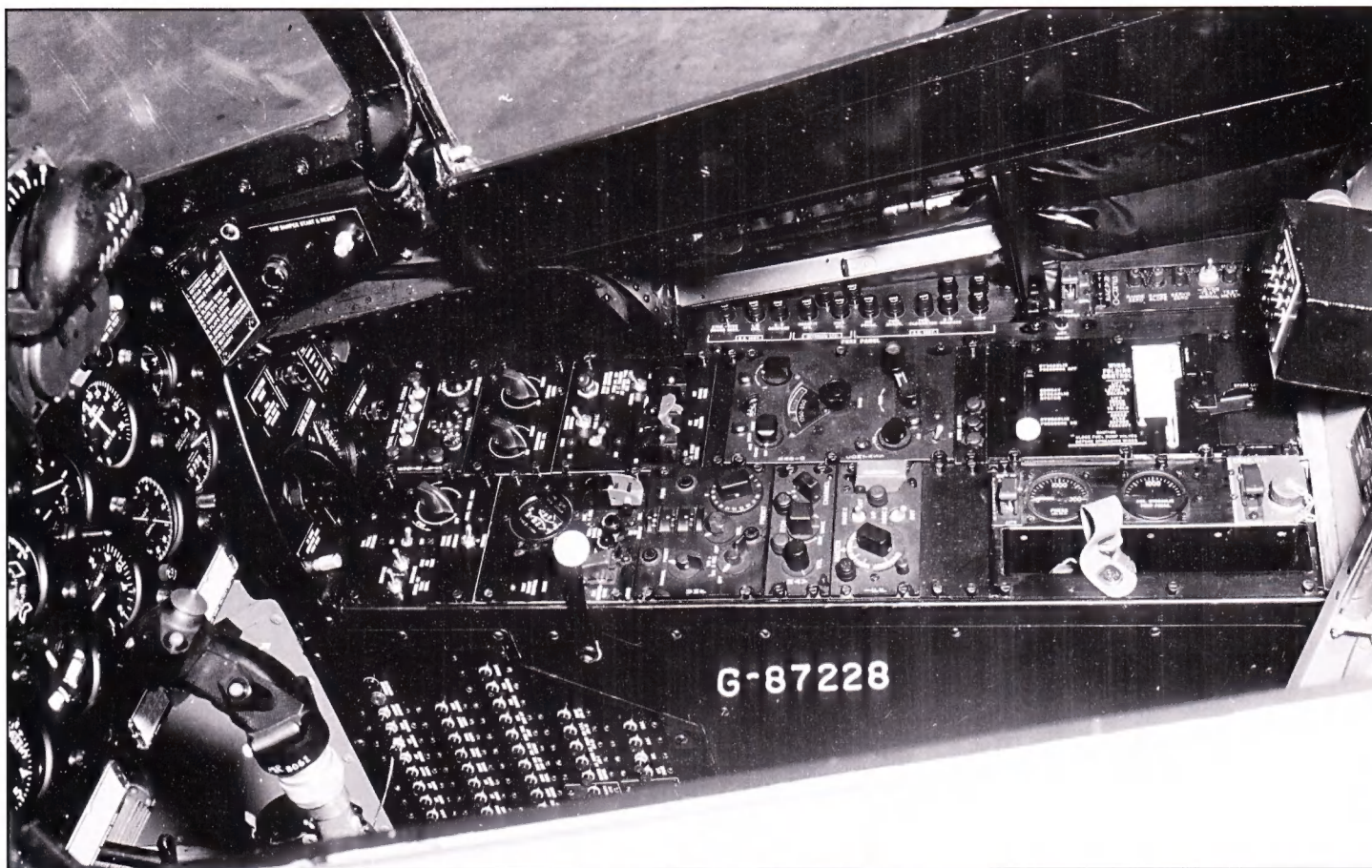
- 1.) Circuit Breaker Panel
- 2.) AC System Control Panel
- 3.) Sliding Nose Unlocked Warn. Light

- 4.) Tail Skid Control Switch
- 5.) Viewfinder Circular Slide Rule
- 6.) Exterior Lights Control Panel

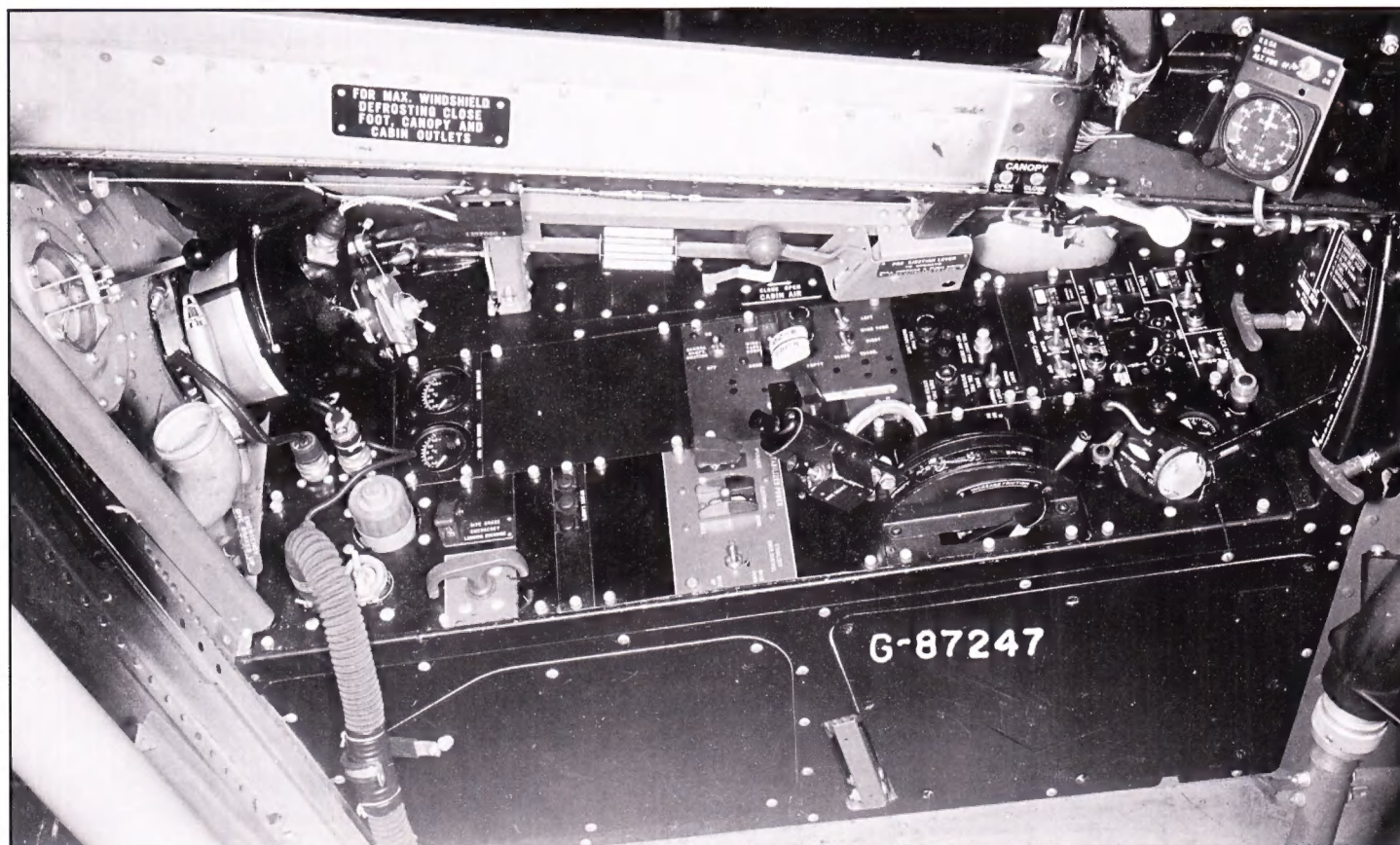
- 7.) Interior Lights Control Panel
- 8.) Engine/Miscellaneous Switches
- 9.) Radio Altimeter Light Switch
- 10.) Chartboard Stowage Lock
- 11.) Chartboard Stowage Channel
- 12.) Fuse Panel
- 13.) AN/ARN-6 Radio Compass Cont. Pnl.
- 14.) Hydraulic Pressure ON/OFF Lever
- 15.) Antenna Relay Switch/Circuit Breaker
- 16.) Wing Folding and Locking Control
- 17.) AN/ARR-2A Nav. Radio Control Panel
- 18.) Stab. Trim Power Circuit Break. Pnl.
- 19.) Spare Lamps and Fuses
- 20.) Auxiliary Hyd. Pump Press. Gage
- 21.) Utility Receptacle
- 22.) Flaperette System Hyd. Pump Cont.
- 23.) Auxiliary Hydraulic Pump Switch
- 24.) Main Hyd. System Pressure Gage
- 25.) AN/APX-6 IFF Control Panel
- 26.) AN/ARC-27 UHF Command Set Panel
- 27.) Interval Control Computer
- 28.) Auto Pilot Power Switch
- 29.) Holding Switch
- 30.) Yaw Damper Switch
- 31.) Auto Pilot Control Panel
- 32.) Seat Height Control Lever
- 33.) Electrical System Control Panel



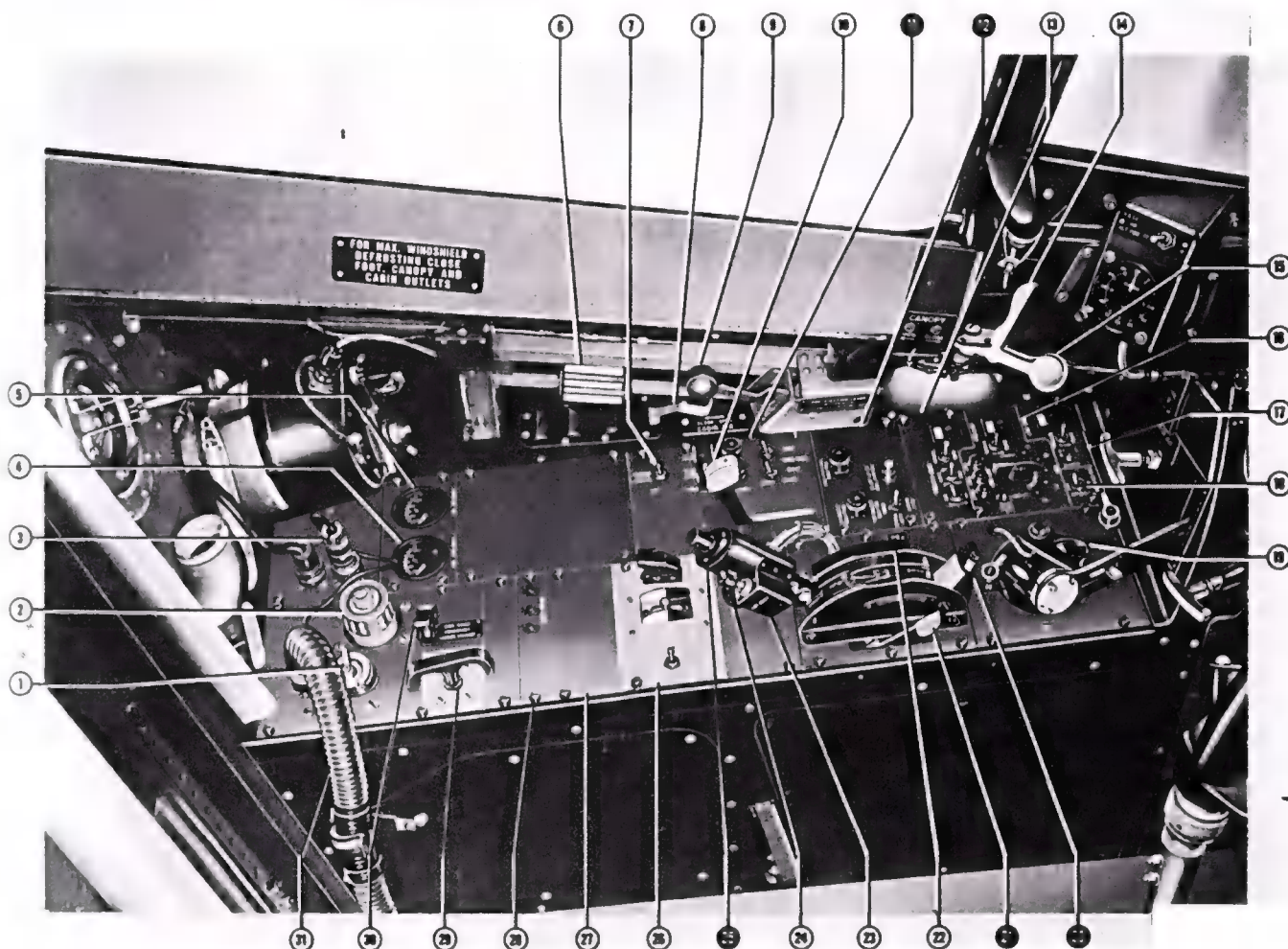
F9F-6P RIGHT - HAND CONSOLE



F9F-6P LEFT - HAND CONSOLE



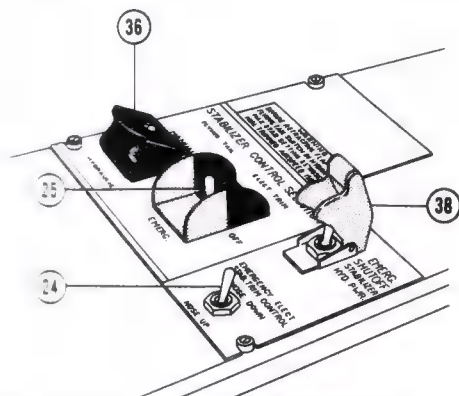
F9F-6P LEFT - HAND CONSOLE



- 1. Anti-G Suit Tube Receptacle
- 2. Anti-G Suit Pressure Control
- 3. Microphone and Headset Plug

STABILIZER CONTROLS

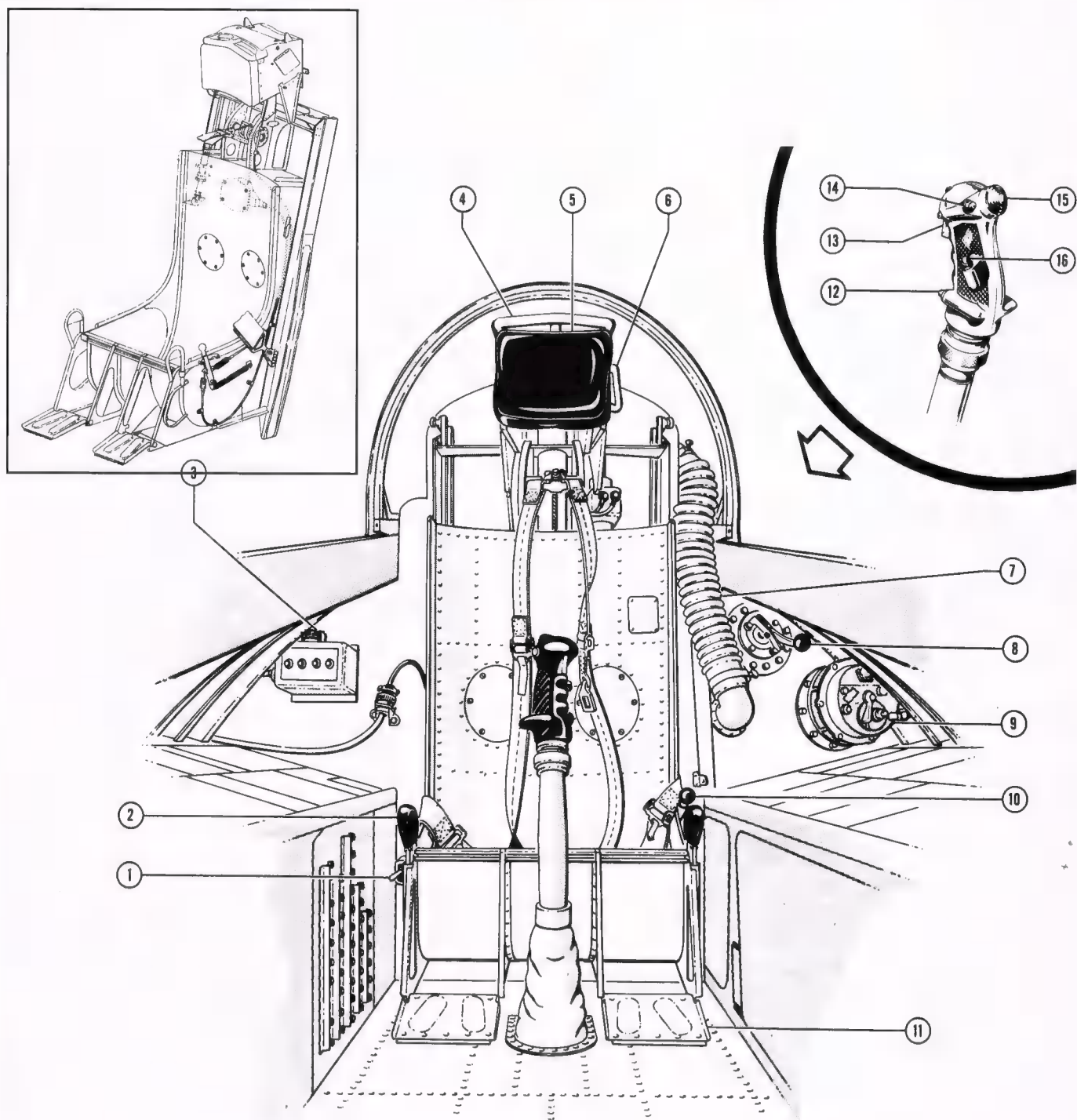
On F9F-6P airplanes with the interim flying tail modification installed, the stabilizer power control panel (item 26) was replaced by the stabilizer control selection panel below. In addition, the stabilizer position indicator (item 24) was removed and replaced with an absolute stabilizer position indicator mounted on the instrument panel



- 24.) Stabilizer Trim Emergency Control Switch
- 25.) Stabilizer Trim Emergency Control Power Switch
- 36.) Longitudinal System Selector Switch
- 38.) Stabilizer hydraulic Power Emergency Shut-Off Switch

- 4.) Camera Compartment Temperature Indicator
- 5.) Outside Air Temperature Indicator
- 6.) Cameras Installed Indicator
- 7.) Camera Compartment Heat Switch
- 8.) Console Air Conditioning Outlet Control Handle
- 9.) Ejection Seat Pre-Ejection Lever
- 10.) Wing Flap Control Lever
- 11.) Airplane Fuel System Control Panel
- 12.) Engine Fuel System Control Panel
- 13.) Strip Camera Control Panel
- 14.) Canopy Emergency (Air) Control Lever
- 15.) Canopy Normal (Hydraulic) Control Lever
- 16.) Aft Bay camera Control Panel
- 17.) Forward Bay Camera Control Panel
- 18.) K & CA Camera Power Switch
- 19.) Oxygen Regulator
- 20.) Catapult Grip
- 21.) Throttle Friction Control Lever
- 22.) Speed Brakes Circuit Breaker
- 23.) Speed Brakes Control Switch
- 24.) Stabilizer Position Indicator
- 25.) Throttle and Microphone Button Switch
- 26.) Stabilizer Power Control Panel
- 27.) Location of Rudder Trim Tab Control Panel
- 28.) Spare Lamps
- 29.) Brake Emergency Control Handle
- 30.) Emer. Speed Brakes Landing Override Switch
- 31.) Oxygen Tube

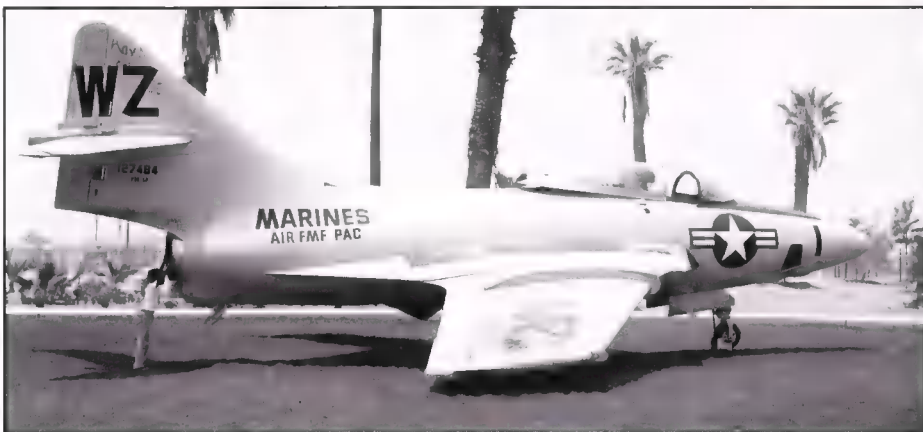
COUGAR EJECTION SEAT



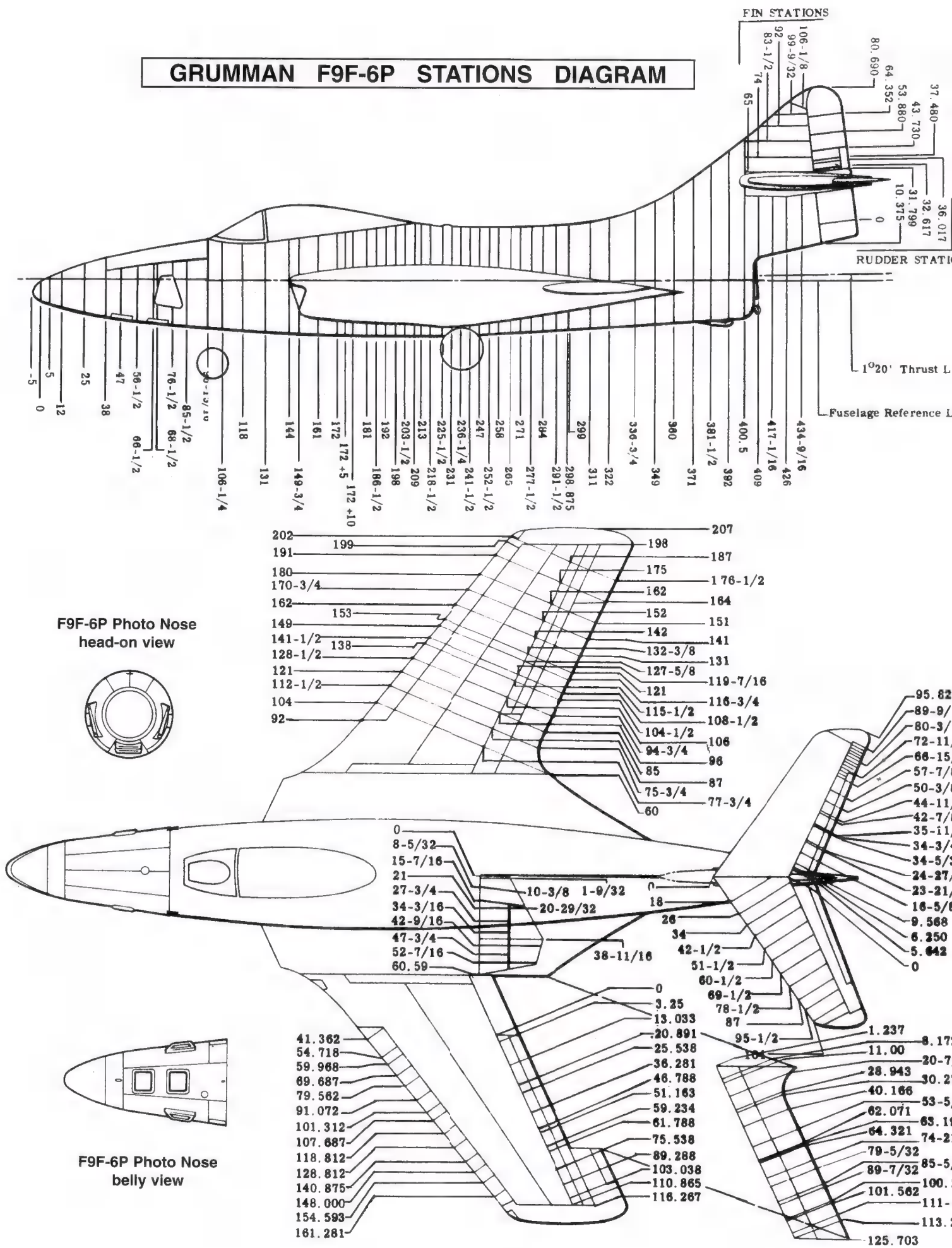
- | | |
|--|---|
| 1. Electric Seat Height Control | 11. Ejection Seat Foot Rest (2) |
| 2. Ejection Seat Knee Brace (2) | 12. Auto Pilot Emergency Off Switch (Not used) |
| 3. Utility Electrical Receptacle | 13. Gun Trigger Switch (F9F-8 Airplanes) |
| 4. Ejection Seat Face Cover Handle | Camera Trigger Switch (F9F-8P Airplanes) |
| 5. Headrest | 14. Bomb Release Switch (F9F-8 Airplanes) |
| 6. Emergency Ejection Seat Arming Control Handle | Extra Picture Switch (F9F-8P Airplanes) |
| 7. Canopy Defrosting Tube | 15. Horizontal Stabilizer Trim and Wing Trim Control Button |
| 8. Cabin Pressure Dump Valve Control Lever | 16. Rocket Switch |
| 9. Cabin Pressure Regulator | |
| 10. Shoulder Harness Inertia Reel Lock Control Lever | |



Above, F9F-6P fresh from rework at NAS Alameda, CA, in the Navy's new grey/white scheme on 26 August 1956. (Larry Smalley via Swisher) At right, F9F-6P BuNo 127484 at a park in Anaheim, CA, on 20 July 1966 in markings of Air FMF Pac. (W. T. Larkins) Below, after their brief usage in the fleet a number of F9F-6Ps were flown by the reserves. Glenview reserves BuNo 128307 taxis at Lambert Field, MO. Fuselage band was orange. (via Fred Roos) Bottom, a civilian F9F-6P in need of paint at Forth Worth, TX, on 14 September 1963. (E. J. Bulban via PMB)



GRUMMAN F9F-6P STATIONS DIAGRAM



F9F-8P PHOTO - COUGAR

F9F-8P: The F9F-8P aircraft was designed with a much larger nose section for an expanded camera suite, replacing the four 20-mm cannon and ammunition of the F9F-8. The first F9F-8P was a re-worked F9F-6, BuNo 127216. A second F9F-8P Cougar was created by converting F9F-8 BuNo 131063. The first production F9F-8P (BuNo 141668) was flown February 18, 1955. The 110 remaining F9F-8Ps, BuNos 141668-141727 and 144377-144426 were delivered between August 1955 and July 1957.

F9F-8P PHOTOGRAPHIC EQUIPMENT:

The nose section of the F9F-8P was divided into three camera bays (stations 1, 2 and 3) and a photographic equipment bay. Photographic equipment included various combinations of cameras, mounts and controls, a camera vacuum system, a viewfinder, viewfinder dehydrator system, and the necessary tubing and wiring for the various combinations of equipment installed. All interior surfaces of the camera bays were painted with a non-specular paint to prevent light reflections.

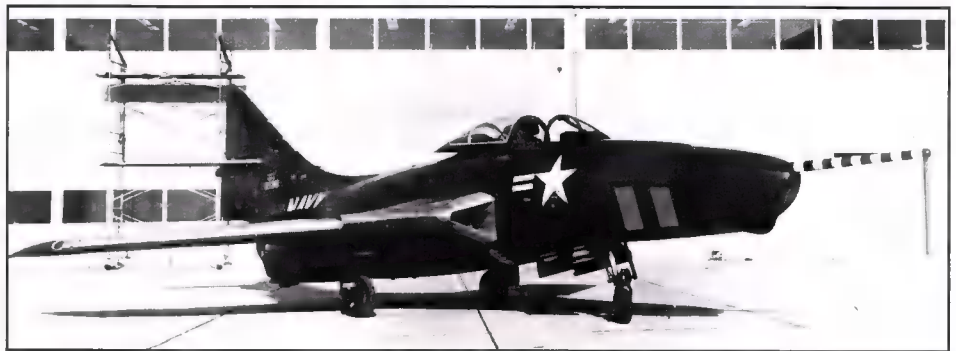
Camera bay window covers similar to those used on the F9F-6P were utilized on the F9F-8P to protect them on the ground.

CAMERA DESIGNATIONS

BuAer CODE	USAF CODE
CA-3-2	K-17C
CA-3-2b	USAF Type K-17C (Rapidne Shutter)
CA-13	K-38
CA-13b	USAF Type K-48 (Rapidne Shutter)
CA-14	T-11
CA-17a	K-47
KF-8	35mm Motion Picture (Mitchell)

CAMERA MAGAZINES

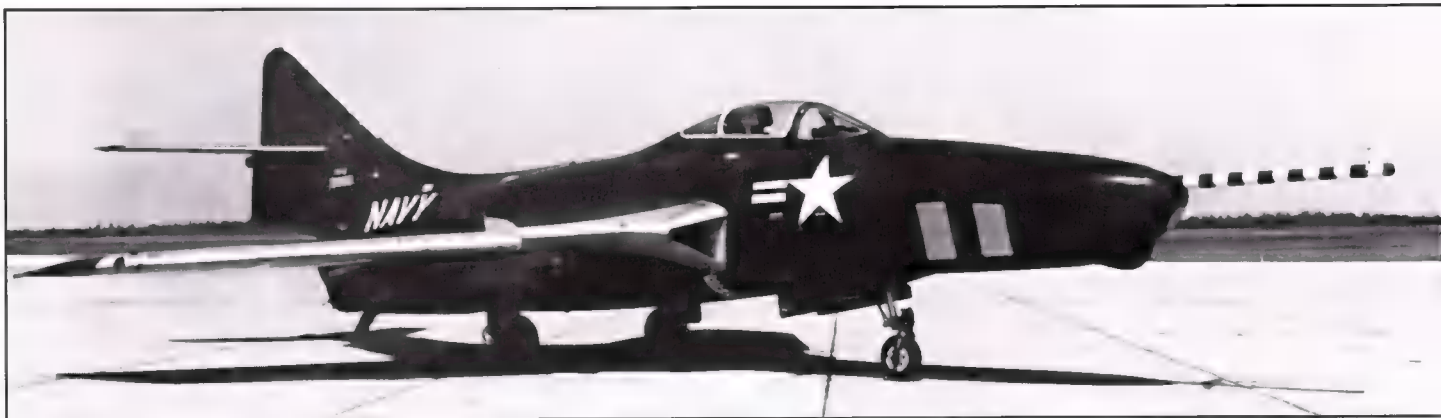
MA-2a	A-5A
MA-8	A-8B
MA-9a	A-9B



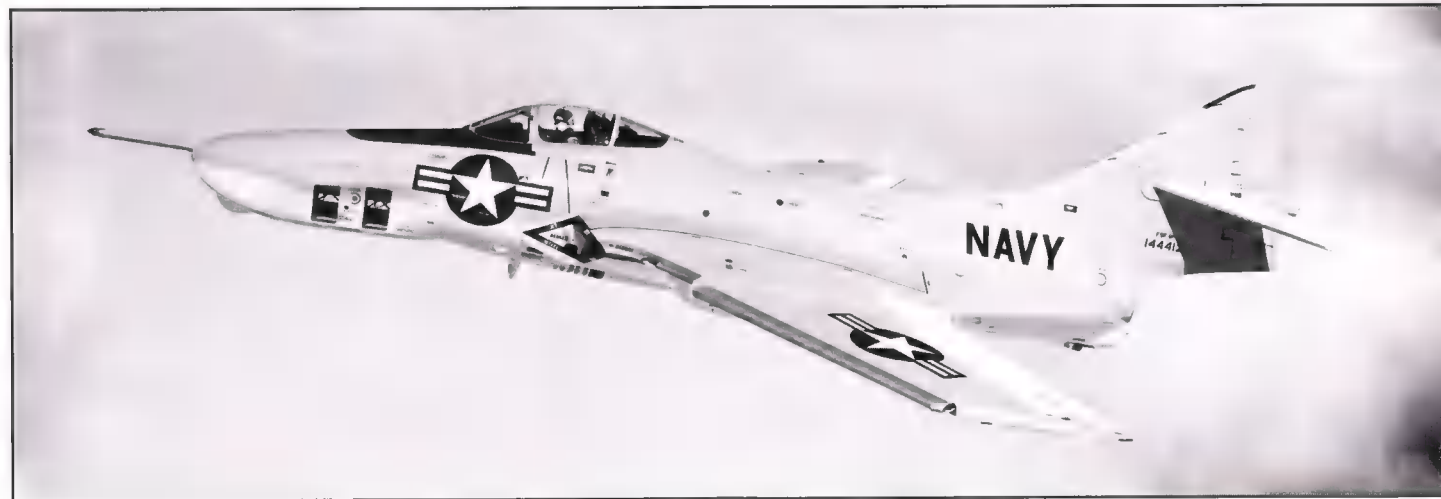
The window washing system was not automatic as on the F9F-6P. Instead, a one-shot camera window wash system was installed. However, it was recommended to be used just after take-off as on the F9F-6P.

Above, F9F-6 BuNo 127216 seen here on 19 February 1955 became one of two prototype F9F-8P aircraft. (via Peter M. Bowers) Below, the first production F9F-8P BuNo 141668 without refueling probe on an early test flight. (Grumman via Peter M. Bowers)





Above, the second F9F-8P prototype, BuNo 131063, was a converted F9F-8 and finished in blue as was BuNo 127216; all production F9F-8Ps were built in the new grey and white scheme. (Grumman) At left and below, the first production F9F-8P BuNo 141668 minus nose refueling probe in flight with wing pylons. (Grumman) Bottom, factory-fresh F9F-8P BuNo 144412 with nose refueling probe added. The camera bays are empty and the unusual pattern in the camera windows was the camera bay framing in front of the sky seen through the opposite windows. (Grumman)





F9F-8P

Above, another in-flight view of F9F-8P BuNo 144412. Note grey wing walk area outlined by a thin black line. (Grumman) At right, unusual angle of overhead view of BuNo 144412 as it taxis past a hangar at Grumman. (Grumman) Below, overhead view of the first production F9F-8P BuNo 141668 without in-flight refueling probe. Note right wing flapperette control surface in the partially open position just forward of the wing flaps and outboard of the wing fence. (Grumman via Peter M. Bowers)

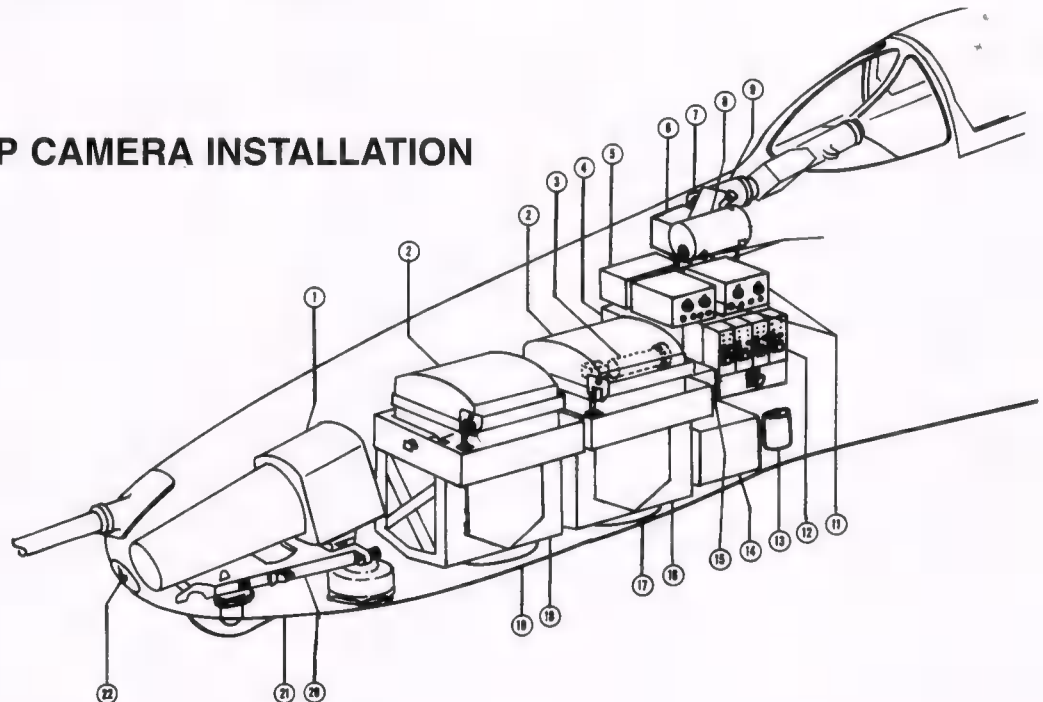


F9F-8P CAMERA INSTALLATION

Camera Station	Camera	Lens Cones (Focal Length)	Magazines	Depression Angles (In Degrees)	Mount
1	KF-8 (35mm Mitchell)	2, 4, 6, 10 in. (no designation)	1000 ft—Integral	7, 9, 11, 13, 15	Ground adjustable
1	CA-3-2	CIL-7 (12 in.)	MA-2a, MA-9a	15	Ground adjustable
1	CA-3-2b	CIL-7a (12 in.)	MA-2a, MA-9a	15	Ground adjustable
1	CA-13	CIL-8 (24 in.) or CIL-9 (36 in.)	MA-8	7, 9, 11, 13, 15	Ground adjustable
1	CA-13b	CIL-10a (24 in.) or CIL-11a (36 in.)	MA-8	7, 9, 11, 13, 15	Ground adjustable
2 and 3	CAS-2a	CILS-1, -2, -3, -4, or CILS-1a, -2a, -3a, -4a	Integral—200 or 400 ft	30 right and left, 90 (vertical)	Ground adjustable (Rotary mount)
2 and 3	CA-14	Integral (6 in.)	Integral	90 (vertical)	Fixed
2 and 3	CA-3-2	CIL-6 (6 in.) CIL-7 (12 in.) CIL-3 (24 in.)	MA-2a, MA-9a, MA-10a	5, 15, 30 right and left, 90 (vertical), 77 (split vertical)	Rotary
2 and 3	CA-3-2b	CIL-1b (6 in.) CIL-7a (12 in.) CIL-12 (24 in.)	MA-2a, MA-9a, MA-10a	5, 15, 30 right and left, 90 (vertical), 77 (split vertical)	Rotary
2 and 3	CA-13	CIL-8 (24 in.) CIL-9 (36 in.)	MA-8	5, 15, 30 right and left, 90 (vertical), 77 (split vertical)	Rotary with IMC mount
2 and 3	CA-13b	CIL-10a (24 in.) CIL-11a (36 in.)	MA-8	5, 15, 30 right and left, 90 (vertical), 77 (split vertical)	Rotary with IMC mount
2 and 3	CA-3-2	CIL-6 (6 in.)	MA-2a, MA-9a	30 right and left and 90 (vertical)	Trimetrogon
2 and 3	CA-3-2b	CIL-1b (6 in.)	MA-2a, MA-9a	30 right and left and 90 (vertical)	Trimetrogon
2 and 3	CA-17a	Integral (12 in.)	MA-10a	90 (vertical), 71 (split vertical)	Fixed and Rotary

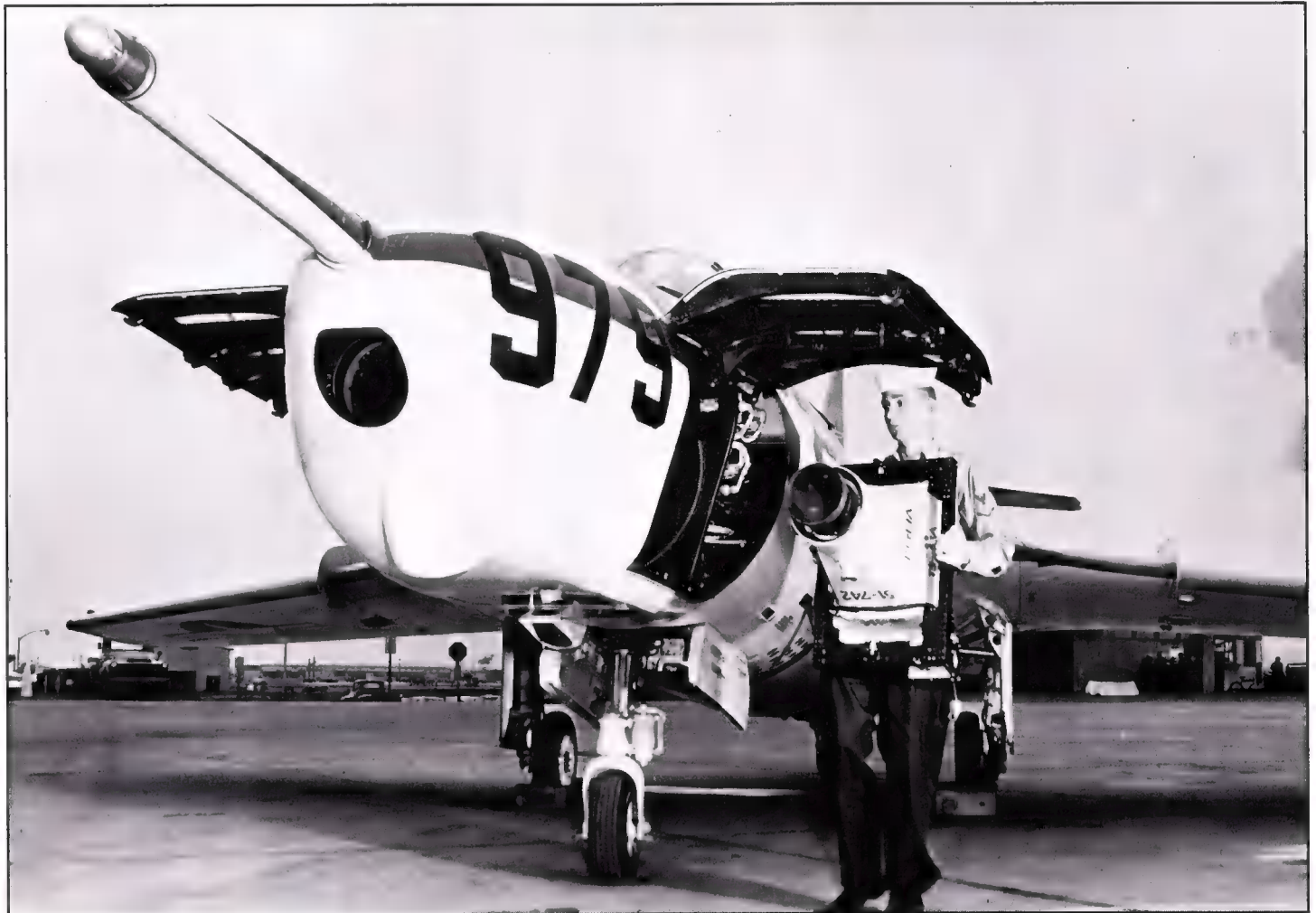
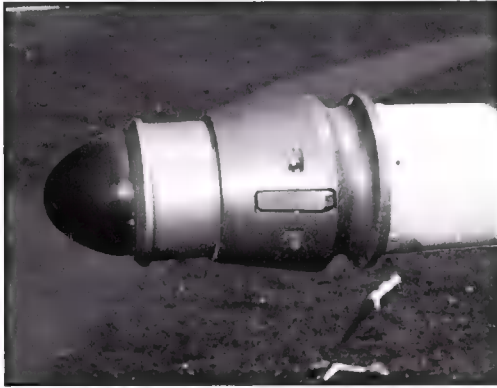
TYPICAL F9F-8P CAMERA INSTALLATION

1. CA-13B Camera with CIL-8 Cone
2. CA-17A Camera Integral Lens Cone
3. Dehydrator and Motor
4. Scanner Converter, Mod HA
5. System Relay Unit
6. Forward Station Relay Unit
7. Overrun Control
8. Window Washing Tank and Filler
9. VF-34 Viewfinder
10. Station Relay Units, AB
11. Servo Power Unit
12. Central Computer
13. Scanner
14. Battery
15. Magazine Relay Unit
16. Rotary Mount STA 3
17. Camera Window STA 3
18. Rotary Mount STA 2
19. Camera Window STA 2
20. Camera Mount STA 1
21. Access Door STA 1
22. Forward Camera Window

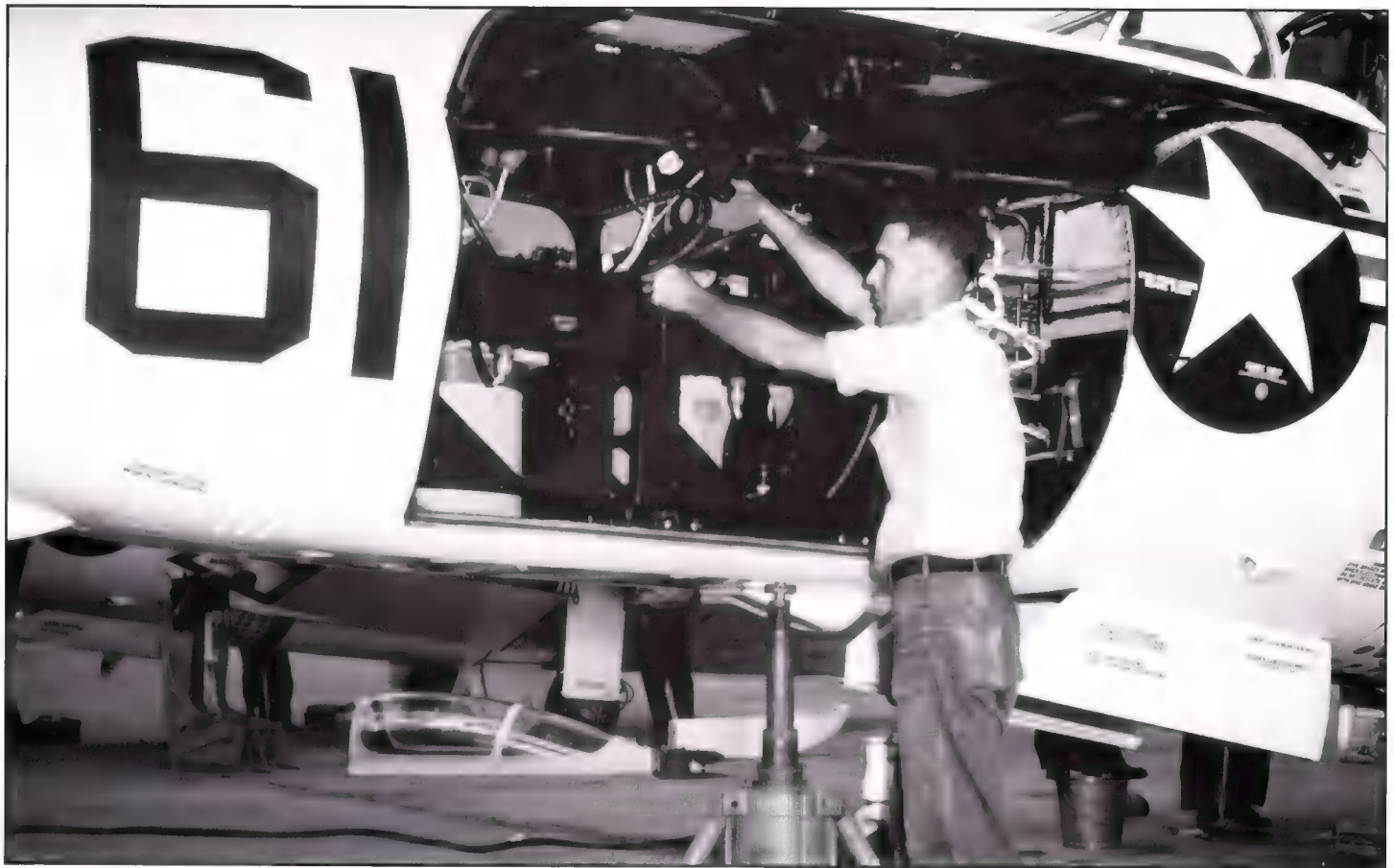


F9F-8P CAMERA INSTALLATION

At right, head-on view of the F9F-8P's nose camera window. (Ginter) Below, close-up of refueling nose probe on the F9F-8P. (Ginter) Bottom, VFP-61 F9F-8P with port and starboard station 2/3 side fuselage doors open. Note camera viewfinder lens just forward of the nose gear. The camera bay interiors were painted non-specular black to limit possibility of reflections. (USN via Don Sperring/A.I.R)

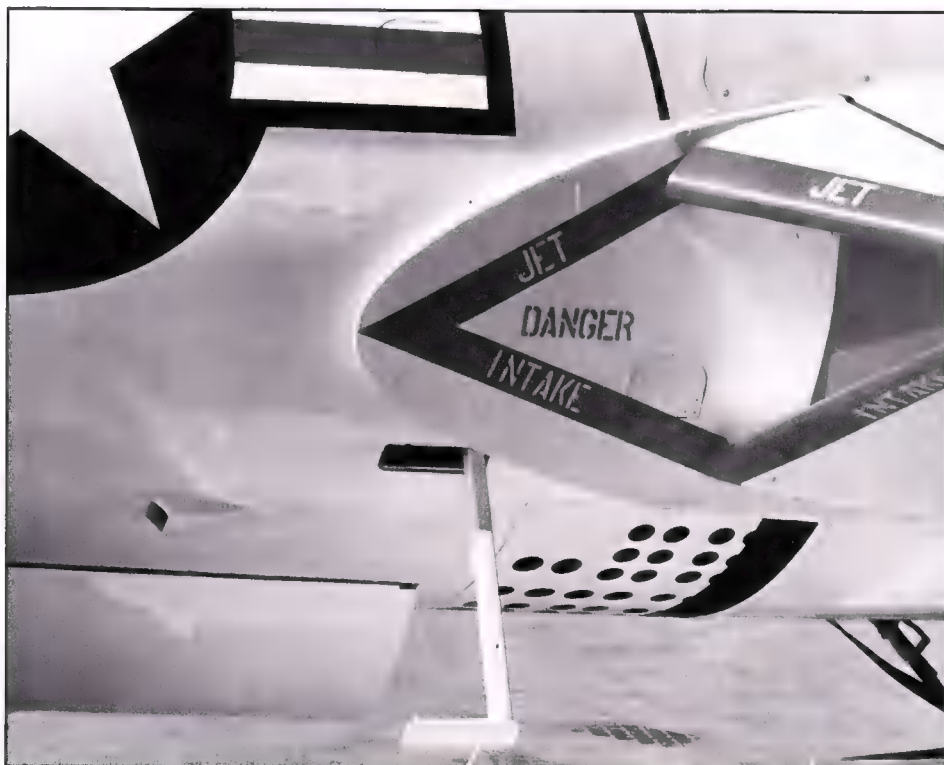


F9F-8P CAMERA INSTALLATION



F9F-8P CAMERA INSTALLATION



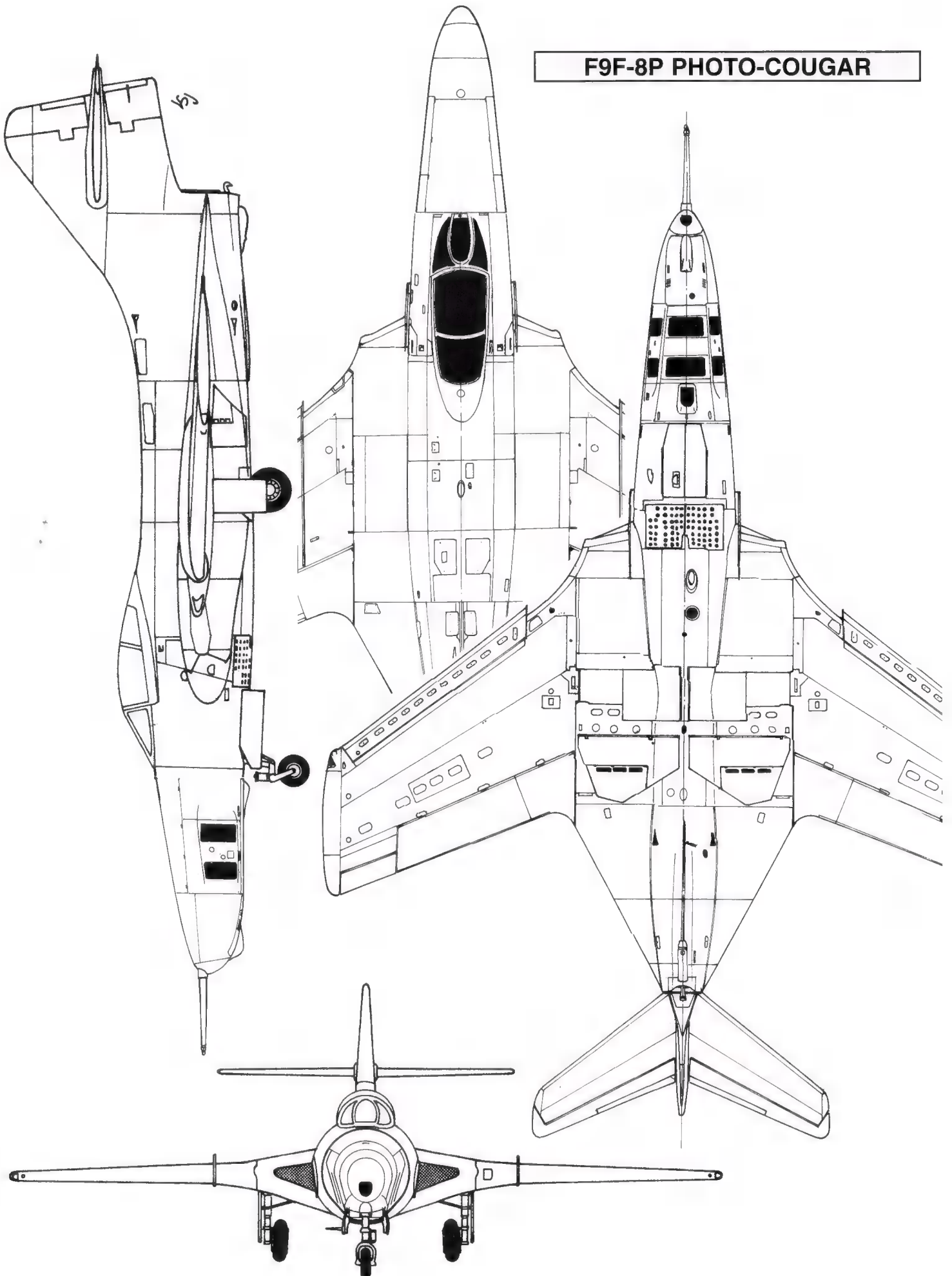


F9F-8P COCKPIT ENTRY AND INTAKE SPLITTER PLATE

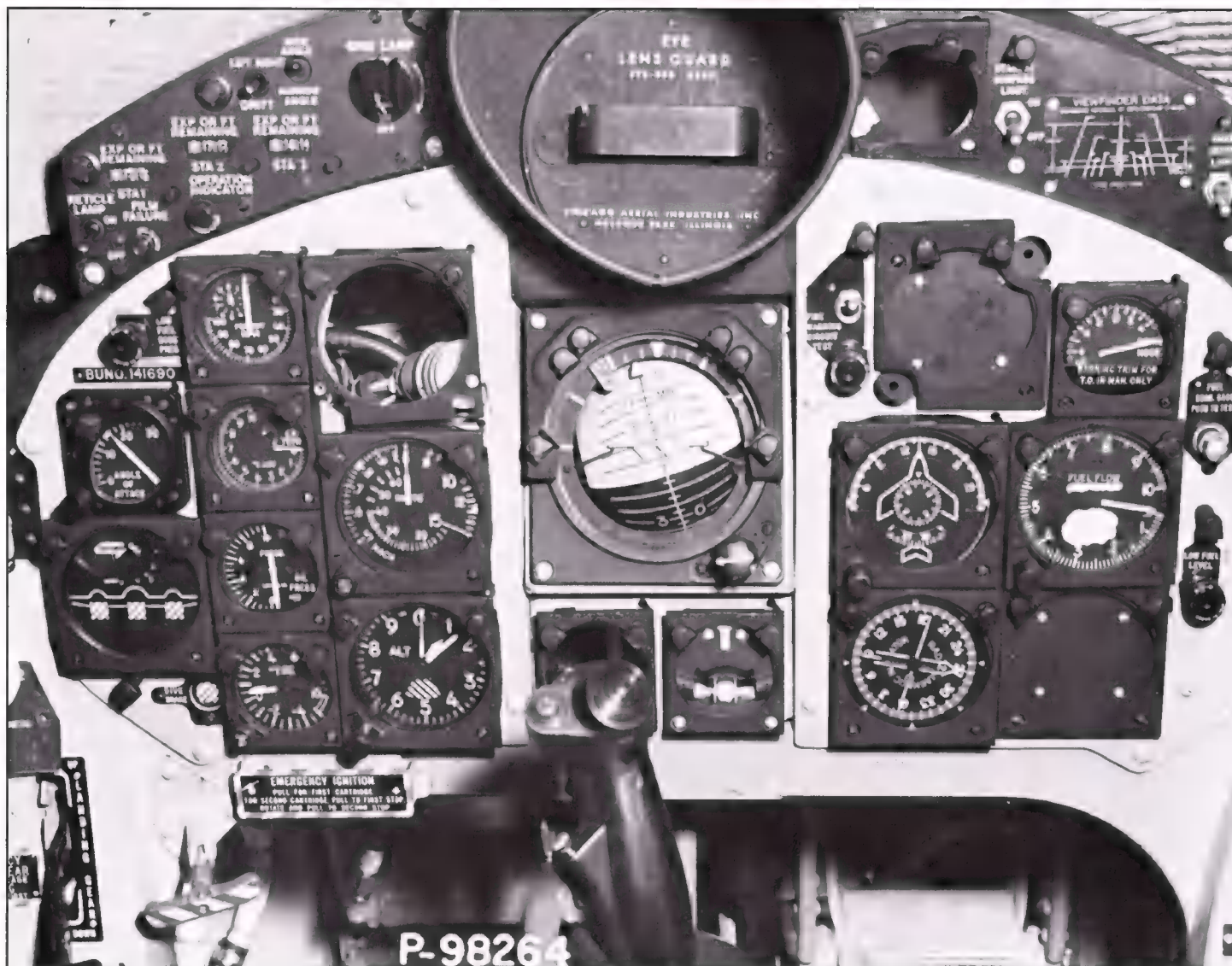
Above, pilot climbing into cockpit of an F9F-8P Cougar. He has his left foot on the extended lower step, his right foot in the intake push-in step, prior to bringing his left foot up to the fuselage push-in step. (USN)

At left, close-up of the extended lower step and splitter plate found on the F9F-8P. The intake push-in step can be seen just above the lower intake warning stripe. The fuselage push-in step is located on the red bar portion of the national insignia. Entry to the cockpit was the same for the F9F-6P, too. (Ginter)

F9F-8P PHOTO-COUGAR



F9F-8P COCKPIT INSTRUMENT PANEL BuNo 141690

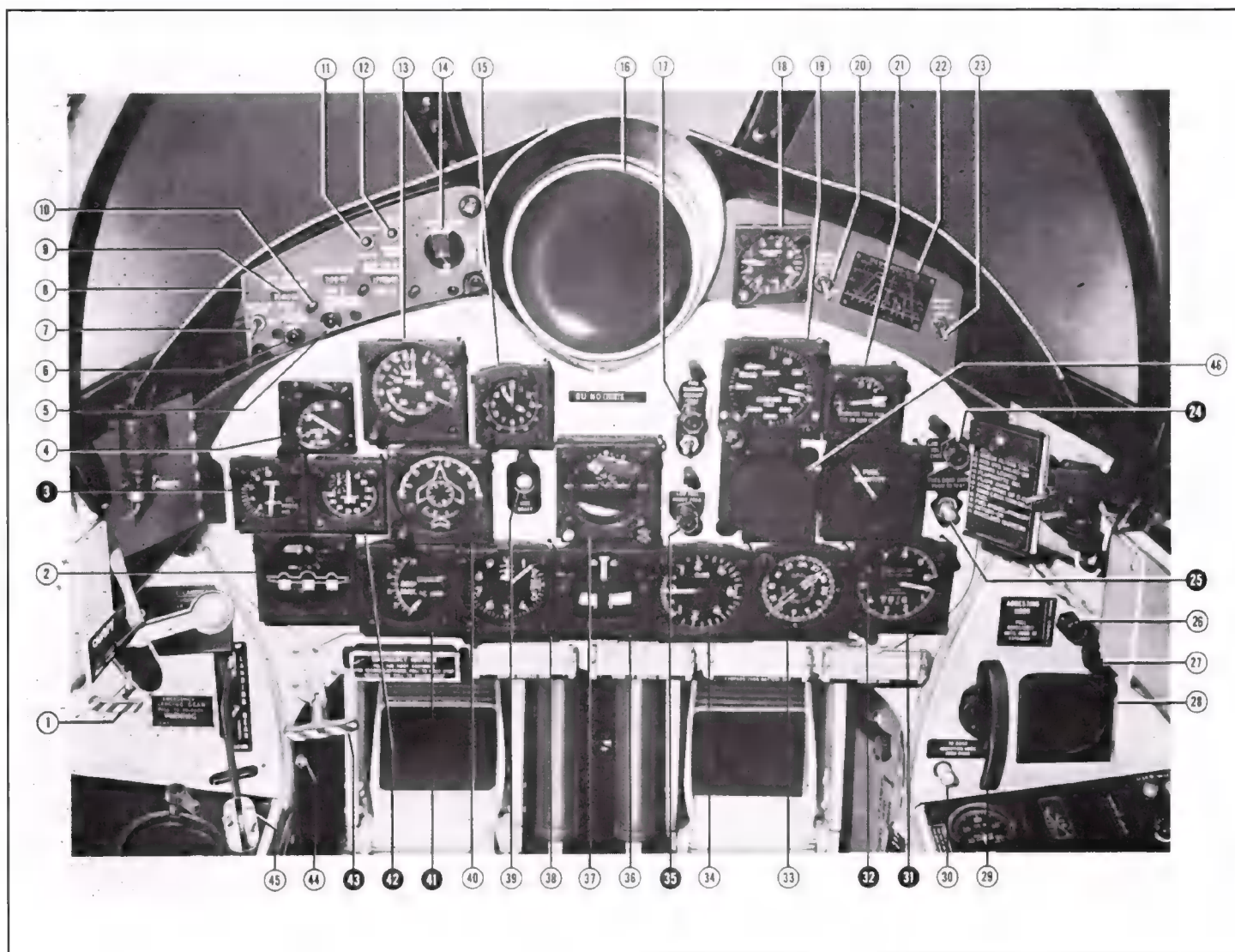


Above, F9F-8P instrument panel on BuNo 141690 during construction. Instrument layout is quite different than that seen in the Flight Manual illustration at right. (Grumman)

DEGREES OF SKY INCLUDED AT VARIOUS MOUNT SETTINGS IN STATION 1 (FWD).

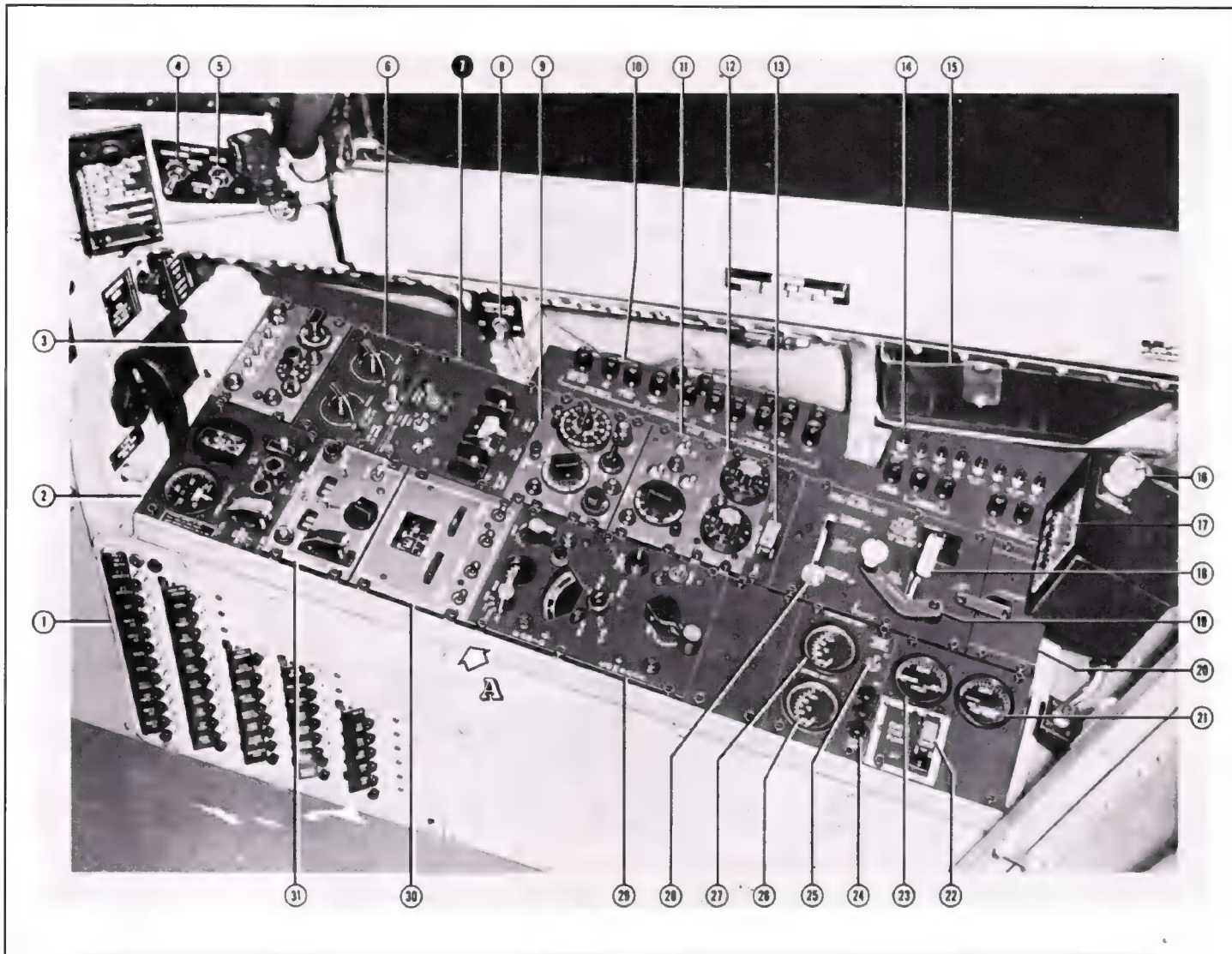
Camera:	CA-3-2, CA-3-2b	CA-13, CA-13b	CA-13, CA-13b	KF-8 Mitchell			
Focal Length:	12 in.	24 in.	36 in.	2 in.	4 in.	6 in.	10 in.
1/2 Field Angle of Lens (Vertical):	20° 33-1/3 min	10° 38-1/3 min	7° 8 min	10° 15 min	5° 10 min	3° 27 min	2° 4 min
Angle of Sky Included in Picture with Mount Setting of:							
7°	None	6°	7° 8 min	10° 15 min	5° 10 min	3° 27 min	2° 4 min
9°	None	4°	2° 40 min	5° 45 min	0° 40 min	None	None
11°	None	2°	0° 40 min	3° 45 min	None	None	None
13°	None	0° 8 min	None	1° 45 min	None	None	None
15°	8°	None	None	None	None	None	None

F9F-8P COCKPIT INSTRUMENT PANEL



- | | |
|--|--|
| 1.) Landing Gear Emergency Air Control Handle | 25.) Fuel Quantity Gauge Test Switch |
| 2.) Wheel and Flaps Position Indicator | 26.) Arresting Hook Position Warning Light |
| 3.) Oil Pressure Indicator | 27.) Location of Tail Skid Control Switch |
| 4.) Angle of Attack Indicator | 28.) Space Provision for Range Indicator |
| 5.) Camera Operation Indicator Light | 29.) Arresting Hook and Barrier Guard Control Handle |
| 6.) Film Failure Indicator Light | 30.) Arresting Hook Raising Switch |
| 7.) Reticle Lamp Switch | 31.) Fuel Flowmeter |
| 8.) Viewfinder Control Panel and Camera Operation Indicators | 32.) Fuel Quantity Gauge |
| 9.) Footage of Film Remaining Counters (3) | 33.) Course Indicator |
| 10.) Counter Reset Knobs (3) | 34.) Rate-of-Climb Indicator |
| 11.) Drift Switch | 35.) Low Fuel Boost Pressure Indicator Light |
| 12.) Wide Angle-Narrow Angle Switch | 36.) Turn and Bank Indicator |
| 13.) Airspeed-Mach Number Indicator | 37.) Gyro Horizon Indicator |
| 14.) Grid Lamp Switch and Rheostat | 38.) Altimeter |
| 15.) Elapsed Time Clock | 39.) Speed Brakes Position Indicator |
| 16.) Viewfinder | 40.) G-2 Remote Compass Indicator |
| 17.) Fire Warning Light and Circuit Test Switch | 41.) Tailpipe Temperature Indicator |
| 18.) Accelerometer | 42.) Tachometer |
| 19.) Radar Altimeter | 43.) Airstart Emergency Igniter Control Handle |
| 20.) Stand-by Compass Light Switch | 44.) Landing Gear Control Down Lock Solenoid Manual Release Knob |
| 21.) Absolute Stabilizer Position Indicator | 45.) Landing Gear Normal Cont. Lever and Landing Gear Unlocked Warning Light |
| 22.) Viewfinder Data Card | 46.) Space Provision for Control Indicator |
| 23.) Instrument Emergency Light Switch | |
| 24.) Low Fuel Level Warning Light | |

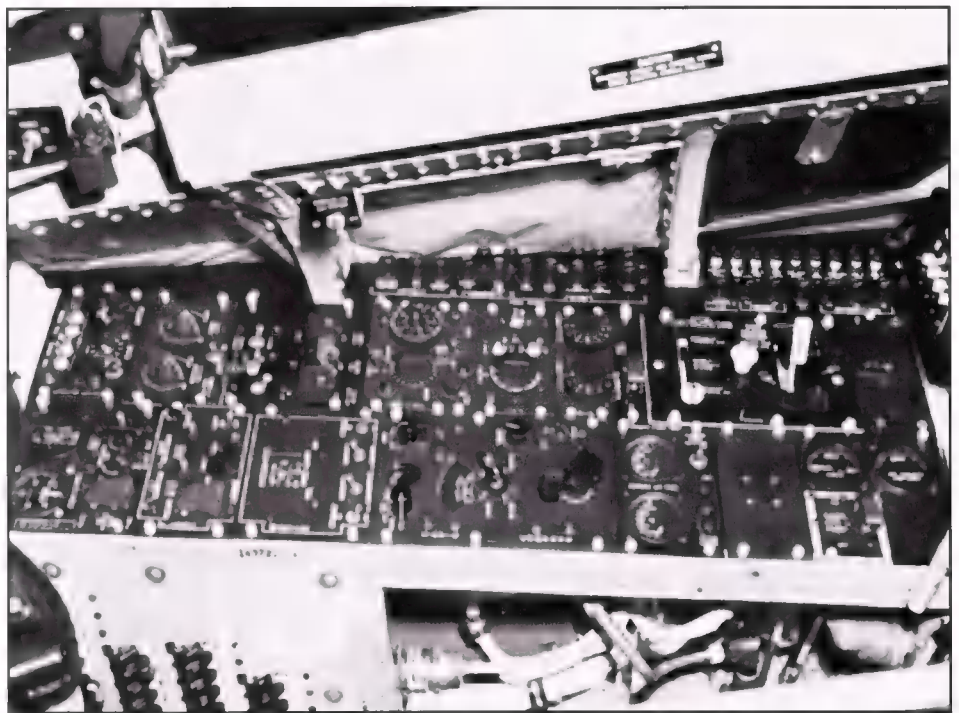
F9F-8P RIGHT - HAND CONSOLE



- | | |
|---|---|
| 1.) Circuit Breaker Panel | 22.) Auxiliary Hydraulic Pump Control Switch |
| 2.) Electrical Power Control Panel | 23.) Main Hydraulic System Pres. Gauge |
| 3.) Exterior Lights Control Panel | 24.) Spare Lamps Panel |
| 4.) Yaw Damper Sensitivity Switch | 25.) Camera Compartment Heat Control |
| 5.) Yaw Damper Power On-Off Switch | 26.) Outside Air Temperature Gauge |
| 6.) Interior Lights Control Panel | 27.) Camera Compartment Temperature Gauge |
| 7.) Engine and Mis. Control Switch Panel | 28.) Combat Hydraulic System On - off Control Lever |
| 8.) Exterior Lights Auxiliary Master Switch | 29.) Radio Compass Control Panel |
| 9.) UHF Command Set Control Panel | 30.) Photo Master Control Panel |
| 10.) Fuse Panel | 31.) Flare Release Control Panel |
| 11.) IFF Control Panel | 32.) Inverter Changeover Switch |
| 12.) SIF Control Panel | 33.) Camera Pressure Altimeter |
| 13.) Flaperette Control Switch | 34.) Instrument Power Failure Warning Light |
| 14.) Camera Installation Fuse Panel | 35.) Generator Warning Light |
| 15.) Map Case | 36.) Voltammeter |
| 16.) Utility Receptacle | 37.) Battery Switch |
| 17.) Stabilizer Control Power Circuit Breaker Panel | 38.) Code Key Indicator Light |
| 18.) Wing Folding Control Lever | 39.) Exterior Lights Control Switches (4) |
| 19.) Wing Folding Unlock Control Lever | 40.) Exterior Lights Manual Code Key |
| 20.) Spare Lamp and Fuse Container | 41.) Code Selector Switch |
| 21.) Auxiliary Hydraulic System Pressure Gauge | 42.) Exterior Lights Master Switch |

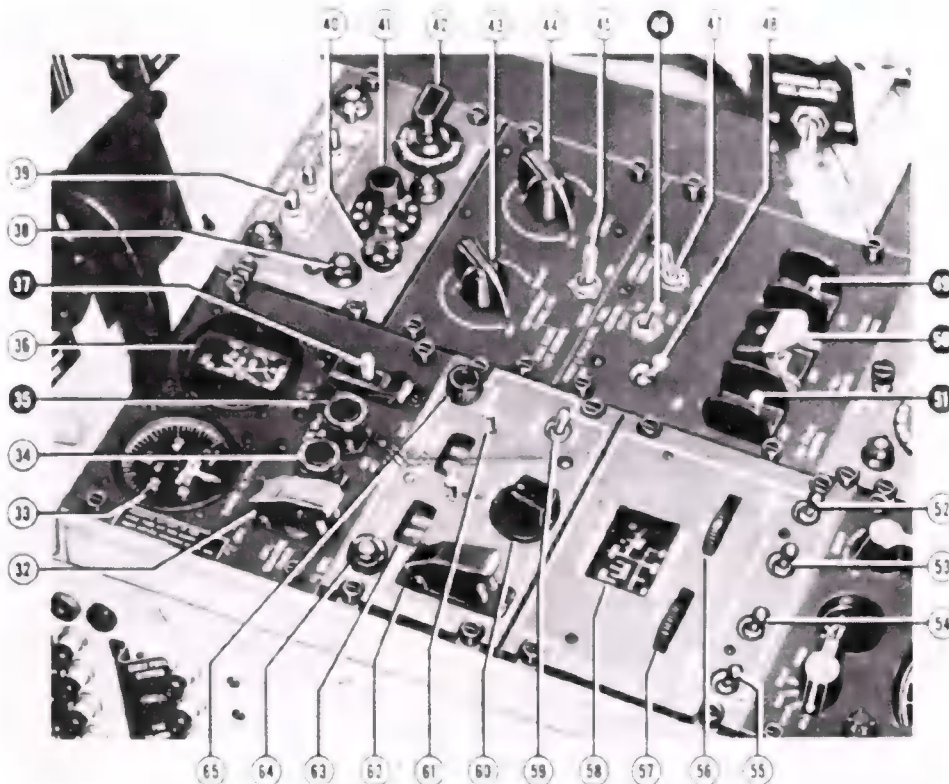
F9F-8P RIGHT - HAND CONSOLE

- 43.) Instrument Panel Light Switch and Rheostat
- 44.) Console Light Switch and Rheostat
- 45.) Camera System Warning Lights Dimmer Switch
- 46.) Fuel Control Heat Switch
- 47.) G-2 Compass Control Switch
- 48.) Pitot and Airstream Direction Detector Heat Switch
- 49.) Engine Crank Switch
- 50.) Fuel Master Switch
- 51.) Engine Start Master Switch
- 52.) Camera Power On - Off Switch
- 53.) Computer - Scanner Switch
- 54.) Sequential - Simultaneous Switch
- 55.) Camera Operate On - Off Switch
- 56.) Altitude Setting Knob
- 57.) Air Speed Setting Knob
- 58.) Altitude - Air Speed Dials
- 59.) Flare Release Ready - Off Switch
- 60.) Left - Train - Right Switch
- 61.) Flare Release Counter Setting Knobs L/R
- 62.) Flare Emergency Salvo Switch



- 63.) Flare Release Counters L/R
- 64.) Flare Release Failure Warning Light
- 65.) Flare Release Ready Light

Above, F9F-8P right - hand pilot's console. (Grumman)

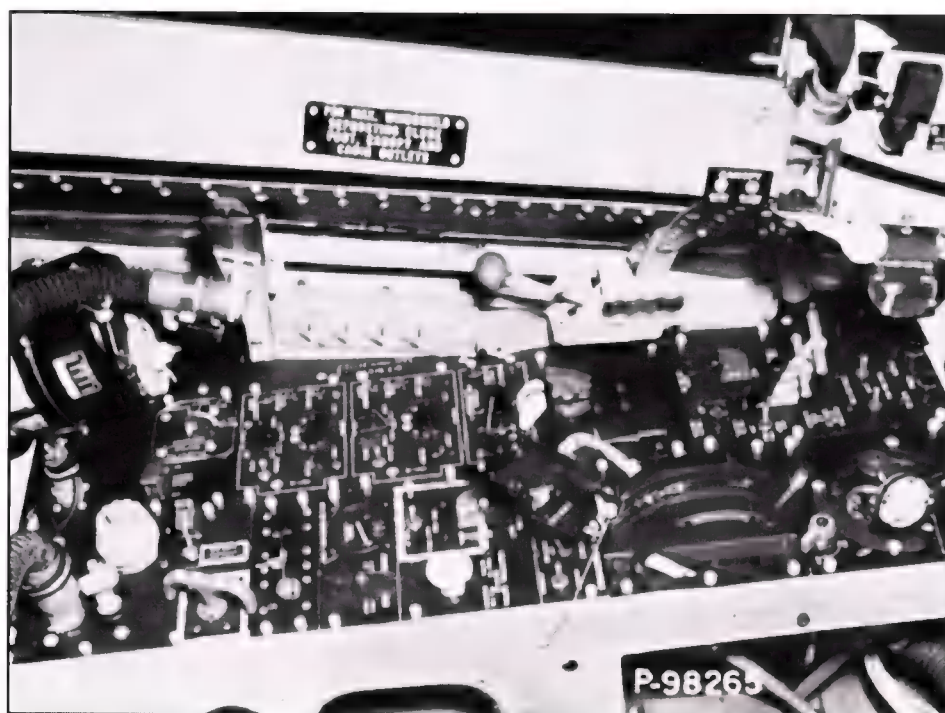
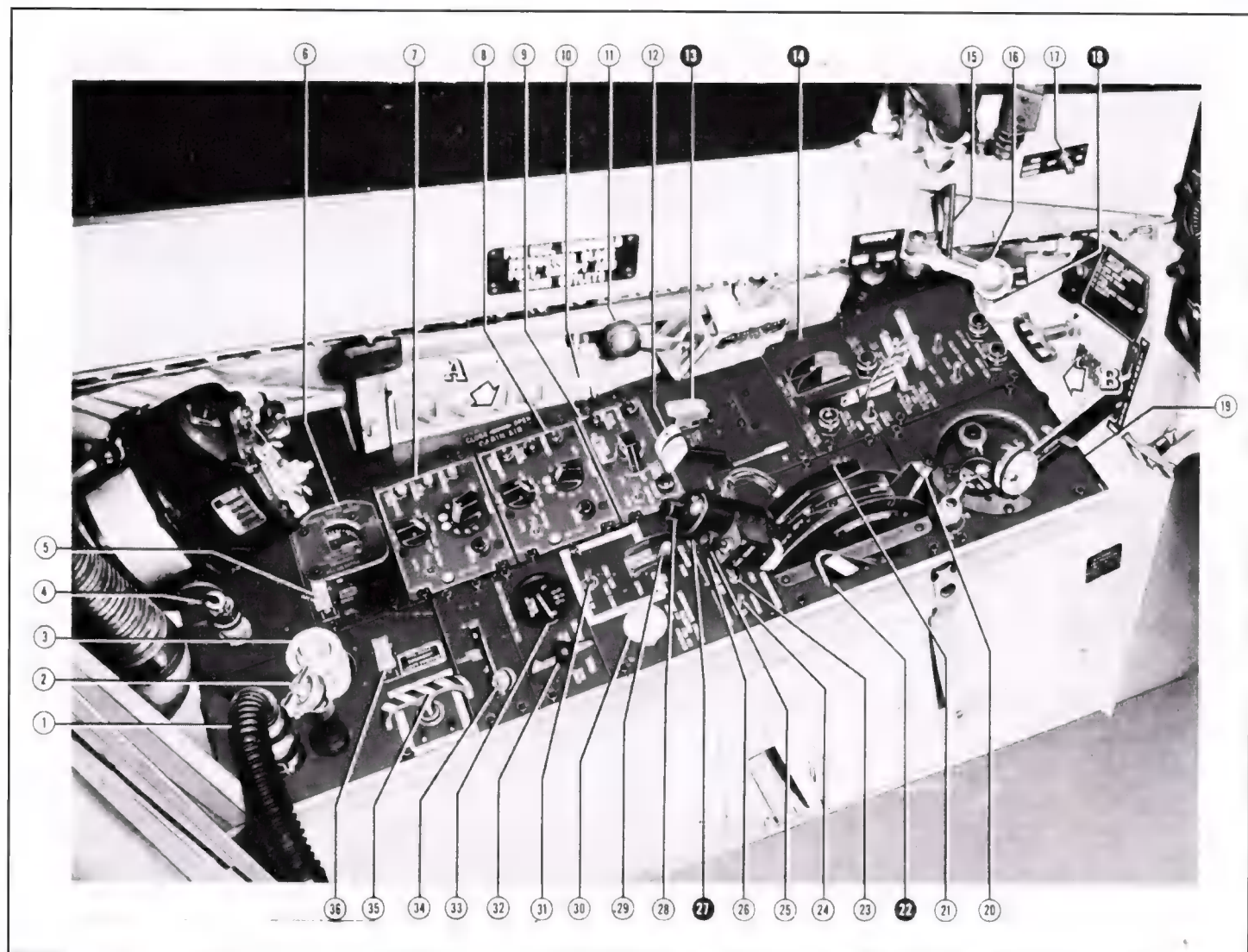


F9F-8P RIGHT - HAND CONSOLE DETAILS

During late 1956, the Air Crew Equipment Laboratory, Naval Air Material Command, tested a variety of light grey color background instrument and console panels on an F9F-6 Cougar. The test proved that visibility was greatly improved and light grey panels started replacing black ones.

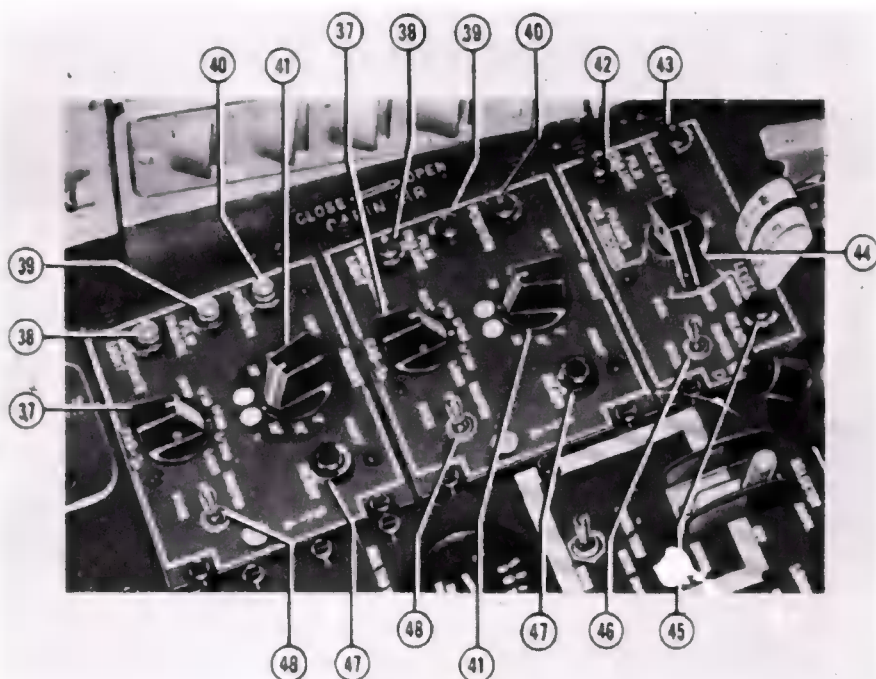
Detail A

F9F-8P LEFT - HAND CONSOLE

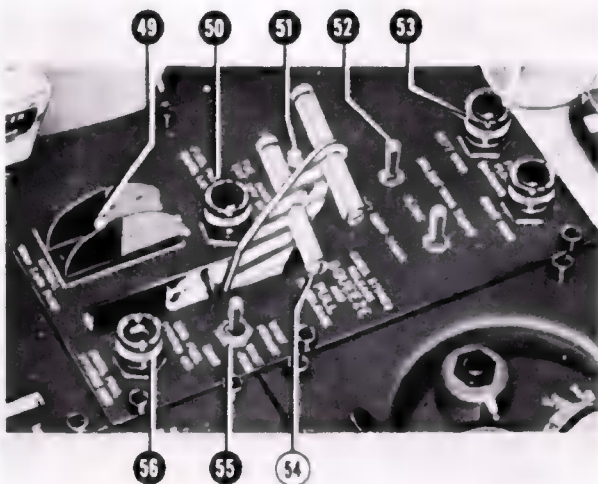


- 1.) Oxygen Tube
- 2.) G-Suit Receptacle
- 3.) G-Suit Pressure Control Valve
- 4.) Microphone and Headset Plug
- 5.) Camera Compartment Window Wash Control Switch
- 6.) Emergency Flaperette Air Pressure Gauge
- 7.) Camera Station 3 Control Panel
- 8.) Camera Station 2 Control Panel
- 9.) Camera Station 1 Control Panel
- 10.) Air Conditioning Outlet Control Handle
- 11.) Pre-Ejection Lever
- 12.) Wing Flaps Control Lever
- 13.) Drop Tanks Jettison Switch
- 14.) Fuel System Control Panel
- 15.) Canopy Emergency Control Lever
- 16.) Canopy Normal Control Lever
- 17.) Camera Remote Master Switch
- 18.) In-Flight Refueling Switch

F9F-8P LEFT - HAND CONSOLE DETAILS



DETAIL A

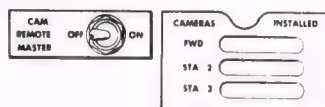
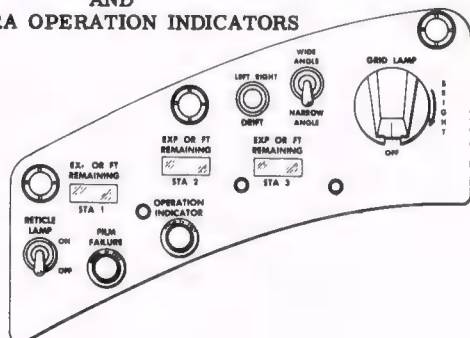


DETAIL B

- 19.) Oxygen Regulator & Cont. Panel
- 20.) Catapult Grip
- 21.) Location of Speed Brake Circuit Breaker
- 22.) Throttle Friction Control Lever
- 23.) Air Conditioning On-Off Switch
- 24.) Air Conditioning Increase / Decrease Switch
- 25.) Speed Brakes Switch
- 26.) Flying Tail Shift Circuit Breaker
- 27.) Throttle Lever
- 28.) Microphone Switch
- 29.) Stabilizer Electrical Trim Selector Switch
- 30.) Longitudinal Control System Selector Knob
- 31.) Stabilizer Emergency Trim Switch
- 32.) Rudder Trim Switch
- 33.) Rudder Trim Position Indicator
- 34.) Flaperette Emergency Power Control Lever
- 35.) Wheel Brakes Emergency Landing Override Switch
- 36.) Speed Brake Emergency Landing Override Switch
- 37.) CAS-2a Camera Exposure Selector Switch
- 38.) Inadequate Light Indicator Light
- 39.) Film Failure Indicator Light
- 40.) Camera Mount Position Indicator Light
- 41.) Camera Mount Selector Switch
- 42.) Film Failure Indicator Light
- 43.) Reset Exposure Indicator Light
- 44.) Frames-Per-Second and Light Level Selector Switches
- 45.) Camera Ready Indicator Light
- 46.) Master Off - Stick Switch
- 47.) Camera Ready Indicator Light
- 48.) Master Off - Stick Switch
- 49.) Wing Tank Dump Switch
- 50.) Engine Fuel Pump Warning Light
- 51.) Fuel Boost Pump Cut-off Switch
- 52.) Wing Tank Selector Switches L/R
- 53.) Wing Fuel Flow Warning Lights
- 54.) Stores Emergency Release Handle
- 55.) Engine Fuel System Selector Switch
- 56.) Engine Emergency Fuel System Indicator Light

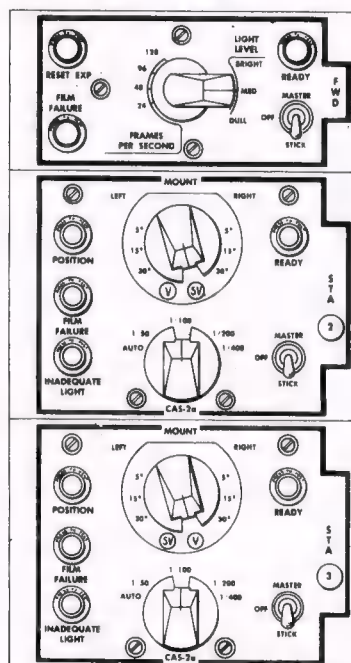
CAMERA DAY OPERATION PREFLIGHT

VIEWFINDER CONTROL PANEL AND CAMERA OPERATION INDICATORS



- Verify that cameras noted on the cameras installed card have been installed in the airplane.
- When the MASTER-OFF-STICK switches are set to MASTER, cameras may be operated by either the camera remote master switch or the operate switch on the master control panel.

LEFT CONSOLE



FLARE RELEASE PANEL

NOTE

The flare release panel is not used. The READY-OFF switch must be set to OFF.

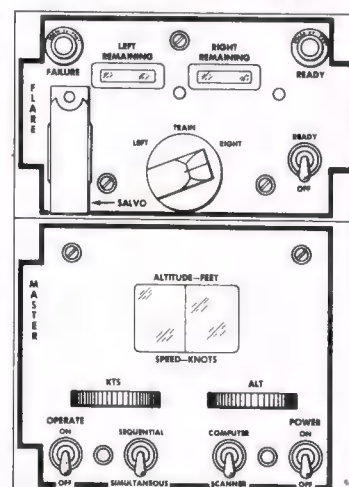
MASTER CONTROL PANEL

- Set in planned airspeed (KTS) and altitude (ALT) for mission.
- Select SEQUENTIAL or SIMULTANEOUS (affects station 2 and 3 only).
- Select COMPUTER or SCANNER.

NOTE

The power switch must be set to ON at least five minutes before operation of the cameras.

RIGHT CONSOLE



STATION 1 (FWD) CONTROL PANEL

- Select planned frames per second.
- Select light level.
- Select MASTER or STICK.

STATION 2 CONTROL PANEL

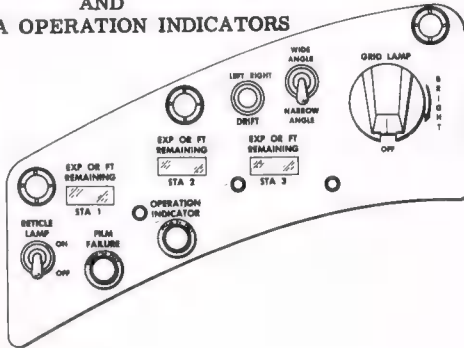
- Select MASTER or STICK.
- For cameras in rotary mount (except CAS-2a), set mount switch to V (on take-offs and landings) to impose least stress on actuator. When using CA-14 camera and mount, set mount switch to V.
- Set exposure (CAS-2a camera only). Set exposure switch to 1/50 if automatic lens cone is being used.

STATION 3 CONTROL PANEL

- Select MASTER or STICK.
- For cameras in rotary mount (except CAS-2a), set mount switch to V (on take-offs and landings) to impose least stress on actuator. When using CA-14 camera and mount, set mount switch to V.
- Set exposure (CAS-2a camera only). Set exposure switch to 1/50 if automatic lens cone is being used.

CAMERA DAY OPERATION PRE-TARGET

VIEWFINDER CONTROL PANEL AND CAMERA OPERATION INDICATORS



- Select WIDE ANGLE (select NARROW ANGLE for forward details).
- Set reticle lamp switch to ON (wide angle only).
- Turn on grid lamp and adjust brightness (wide angle only).
- Align reticle to course by setting drift switch to LEFT or RIGHT.

Note

To determine true ground speed with the scanner-computer switch set to COMPUTER, align the reticle with the course (using drift switch), set in true altitude (ALT) and then rotate the KTS wheel on the master control panel until the grid follows the ground object.

FLARE RELEASE PANEL

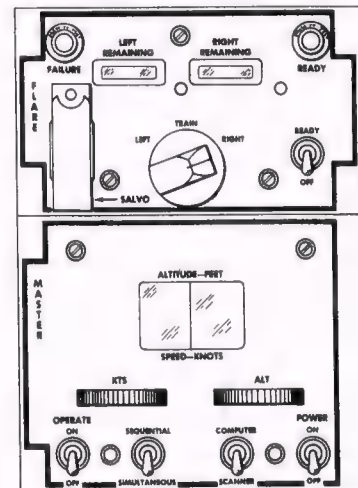
NOTE

The flare release panel is not used. The READY-OFF switch must be set to OFF.

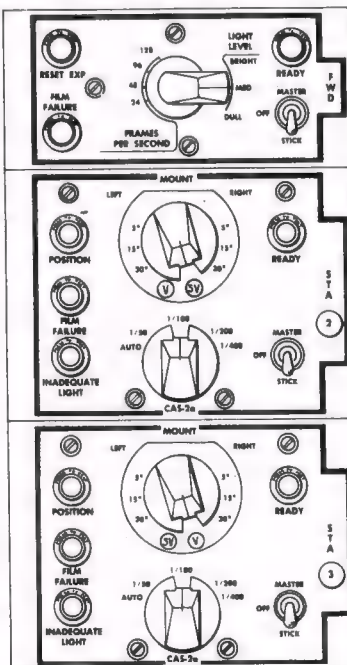
MASTER CONTROL PANEL

- Set power switch to ON at least five minutes before operation of cameras is desired.
- Check that altitude (ALT) and airspeed (KTS) settings are correct.

RIGHT CONSOLE



LEFT CONSOLE



STATION 1 (FWD) CONTROL PANEL

- Check light level. If reset exposure light glows, use nearest frames per second setting which will extinguish light. **KF-8 camera only**
- Check that ready light is glowing.

STATION 2 CONTROL PANEL

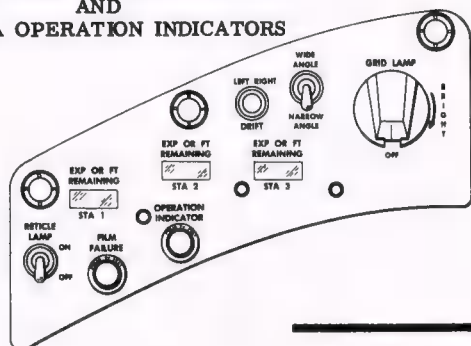
- Check that ready light is glowing.
- Set mount switch to the correct depression angle. Position light will go out when mount is in position.
- When automatic lens cone is installed (CAS-2a Camera):
Wait 20 seconds after ready light glows.
Set exposure switch to AUTO.
Inadequate lamp should glow a few seconds and then be extinguished if scene brightness is sufficient.

STATION 3 CONTROL PANEL

- Check that ready light is glowing.
- Set mount switch to the correct depression angle. Position light will go out when mount is in position.
- When automatic lens cone is installed (CAS-2a Camera):
Wait 20 seconds after ready light glows.
Set exposure switch to AUTO.
Inadequate lamp should glow a few seconds and then be extinguished if scene brightness is sufficient.

CAMERA DAY OPERATION ON TARGET

VIEWFINDER CONTROL PANEL
AND
CAMERA OPERATION INDICATORS



Check operation of cameras occasionally by observing that:

- Station exposure counters are subtracting.
- Film failure light is not glowing steadily.
- Operation indicator light is flashing.

FLARE RELEASE PANEL

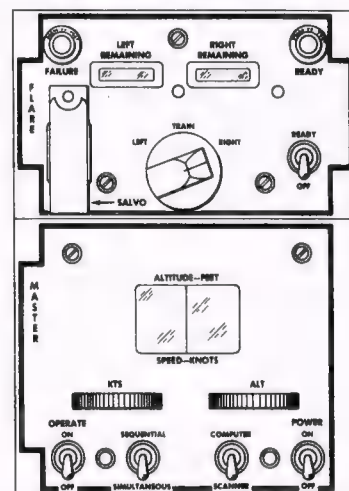
NOTE

The flare release panel is not used. The READY-OFF switch must be set to OFF.

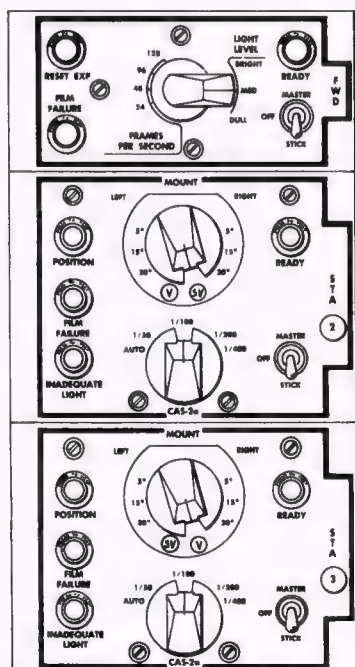
MASTER CONTROL PANEL

Begin photography run by setting operate switch to ON or by pressing trigger switch on control stick. The mode of operation depends upon whether the MASTER-OFF-STICK switches are set to MASTER or STICK.

RIGHT CONSOLE



LEFT CONSOLE



STATION 1 (FWD) CONTROL PANEL

Observe film failure light occasionally. Light should not glow steadily.

STATION 2 CONTROL PANEL

- Observe film failure light occasionally. Light should not glow steadily.
- If inadequate light lamp glows (automatic lens cone only), it indicates cone has reached its limit and photographic results are doubtful.

STATION 3 CONTROL PANEL

- Observe film failure light occasionally. Light should not glow steadily.
- If inadequate light lamp glows (automatic lens cone only), it indicates cone has reached its limit and photographic results are doubtful.



EXTRA PICTURE SWITCH

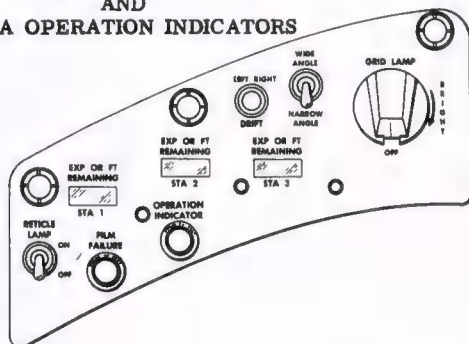
- MASTER-OFF-STICK switch must be set to MASTER or STICK.
- Press and release for one picture
- Press and hold for several pictures (runaway operation results).

Note

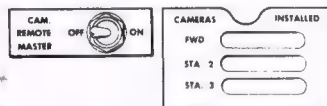
This switch is not used when the following cameras are installed: KF-8, CAS-2a, and cameras equipped with a MA-10a magazine.

CAMERA NIGHT OPERATION PREFLIGHT

VIEWFINDER CONTROL PANEL AND CAMERA OPERATION INDICATORS

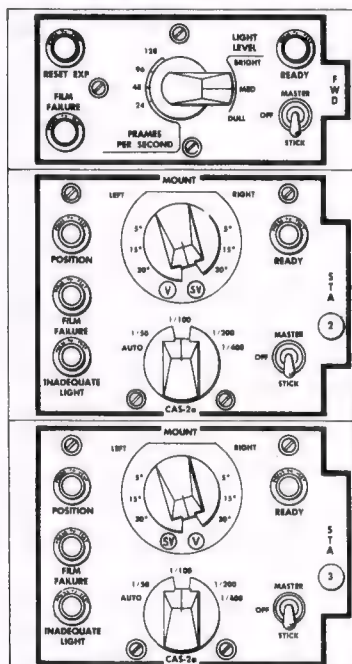


Verify that numbers on EXP or FT REMAINING counters agree with amount of film loaded in the corresponding station cameras.



- Verify that cameras noted on the cameras installed card have been installed in the airplane.
- When the MASTER-OFF-STICK switches are set to MASTER, cameras may be operated by either the camera remote master switch or the operate switch on the master control panel.

LEFT CONSOLE



FLARE RELEASE PANEL

- Ready-off switch set to OFF.
- Verify that numbers on flare remaining counters agree with the number of flares carried by the airplane.
- Check that failure light is out.

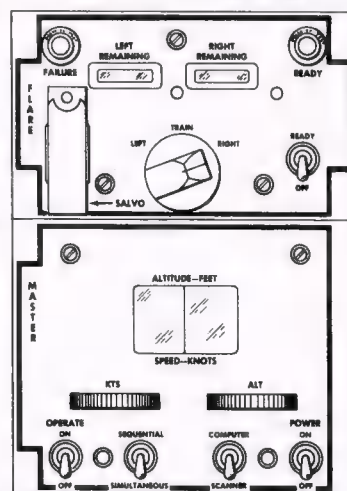
MASTER CONTROL PANEL

- Set in planned airspeed (KTS) and altitude (ALT) for mission.
- Select SEQUENTIAL or SIMULTANEOUS (affects stations 2 and 3 only).
- Select COMPUTER.

NOTE

The power switch must be set to ON at least five minutes before operation of the cameras.

RIGHT CONSOLE



STATION 1 (FWD) CONTROL PANEL

Not used in night photography.

STATION 2 CONTROL PANEL

- Select MASTER or STICK.
- Set mount switch to V (vertical) or SV (split vertical). Position light will go out when mount is in position.

STATION 3 CONTROL PANEL

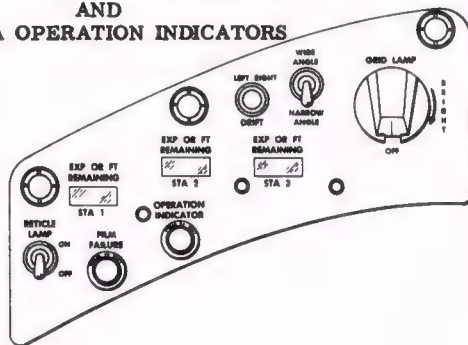
- Select MASTER or STICK.
- Set mount switch to V (vertical) or SV (split vertical). Position light will go out when mount is in position.

Below, F9F-8P BuNo 141722 tail and rudder. (Ginter)

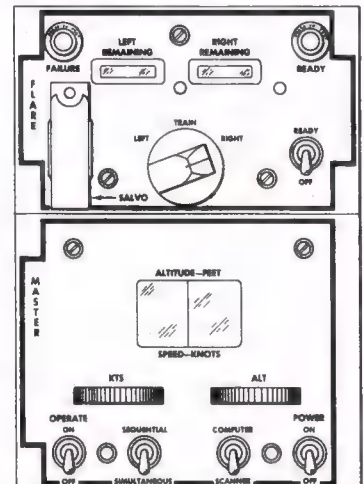


CAMERA NIGHT OPERATION PRE-TARGET

VIEWFINDER CONTROL PANEL AND CAMERA OPERATION INDICATORS



RIGHT CONSOLE



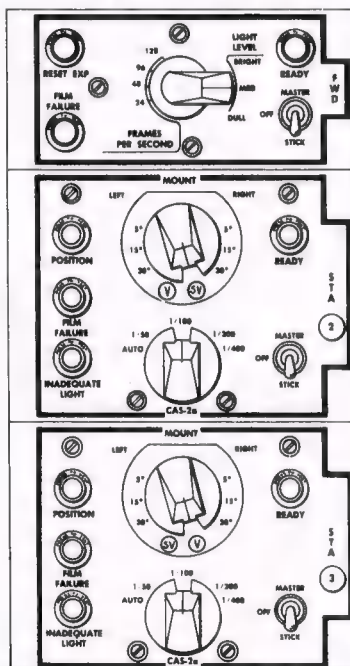
FLARE RELEASE PANEL

- Set READY-OFF switch to READY.
- Set LEFT-TRAIN-RIGHT selector switch as desired.
- Check that ready light is glowing (light will not illuminate until landing gear is retracted).

MASTER CONTROL PANEL

- Set power switch to ON at least five minutes before operation of cameras is desired.
- Check that altitude (ALT) and airspeed (KTS) settings are correct.

LEFT CONSOLE



STATION 1 (FWD) CONTROL PANEL

Not used in night photography.

STATION 2 CONTROL PANEL

- Check that ready light is glowing.
- Check that position light is out.

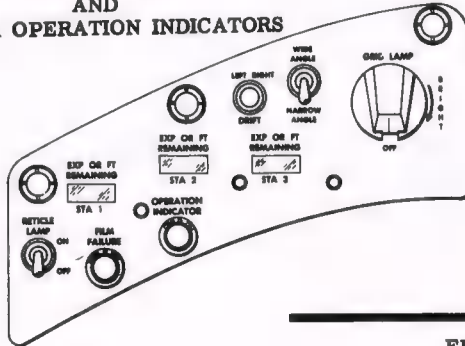
STATION 3 CONTROL PANEL

- Check that ready light is glowing.
- Check that position light is out.

Above, F9F-8P BuNo 141701 was assigned to NADC Johnnsville. Red wood strips were used on the aft fuselage to keep the blow-in doors closed during long periods of non-operations.

CAMERA NIGHT OPERATION ON TARGET

VIEWFINDER CONTROL PANEL AND CAMERA OPERATION INDICATORS



Check operation of cameras occasionally by observing that:

- Station exposure counters are subtracting.
- Film failure light is not glowing steadily.
- Operation indicator light is flashing.

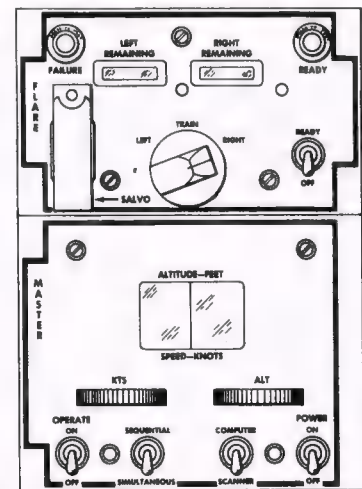
FLARE RELEASE PANEL

In an emergency, jettison flares by lifting guard and setting switch to SALVO.

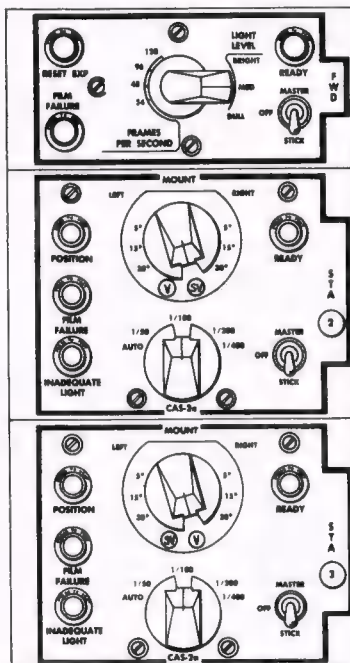
MASTER CONTROL PANEL

Begin photography run by setting operate switch to ON or by pressing trigger switch on control stick. The mode of operation depends upon whether the MASTER-OFF-STICK switches are set to MASTER or STICK.

RIGHT CONSOLE



LEFT CONSOLE



STATION 1 (FWD) CONTROL PANEL

Not used in night photography.

STATION 2 CONTROL PANEL

Observe film failure light occasionally. Light should be out.

STATION 3 CONTROL PANEL

Observe film failure light occasionally. Light should be out.



EXTRA PICTURE SWITCH

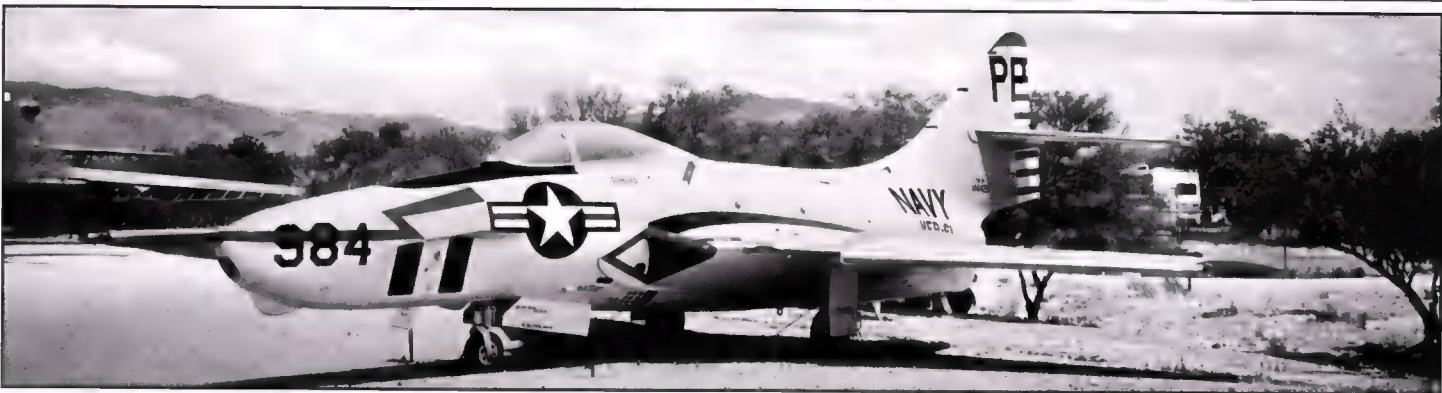
To operate cameras using extra picture switch:

- Set operate switch to OFF and release pressure on trigger switch on control stick.
- Set MASTER-OFF-STICK switches to MASTER or STICK.
- Press and release extra picture switch for each picture desired.

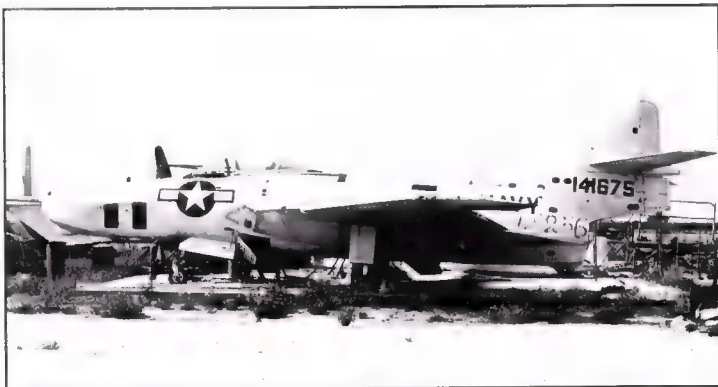
TWILIGHT FOR THE F9F-8P



Above, ex-Marine F9F-8P BuNo 144377 at NAS Alameda on 28 October 1960. (Smalley via Swisher) Below, BuNo 141688 at Johnsville on 23 May 1961. (via Norm Taylor) Below middle, Pima Air & Space Museum F9F-8P BuNo 144426 in VFP-61 red trim in 1997. (Ginter) Bottom, USMC Museum El Toro's (now at MCAS Miramar) F9F-8P BuNo 141722 in 1997. (Wayne Morris)



TWILIGHT FOR THE F9F-8P



Above left, F9F-8P BuNo 141675 at Buckeye, AZ, in 1975. (via Burger) Above right, F9F-8P BuNo 141690 with Unity for Service, United Exchange Club insignia on the tail. Date and park location unknown. (via Burger) Below, FAA F9F-8P N474 BuNo 141684 on 25 July 1962 at Atlantic City, NJ. Trim on wings, tail and fuselage was da-glo red and nose stripes and anti-glare panels were black. (Roger Besecker) Bottom, FAA F9F-8P BuNo 141683 on 25 July 1962. (Roger Besecker)

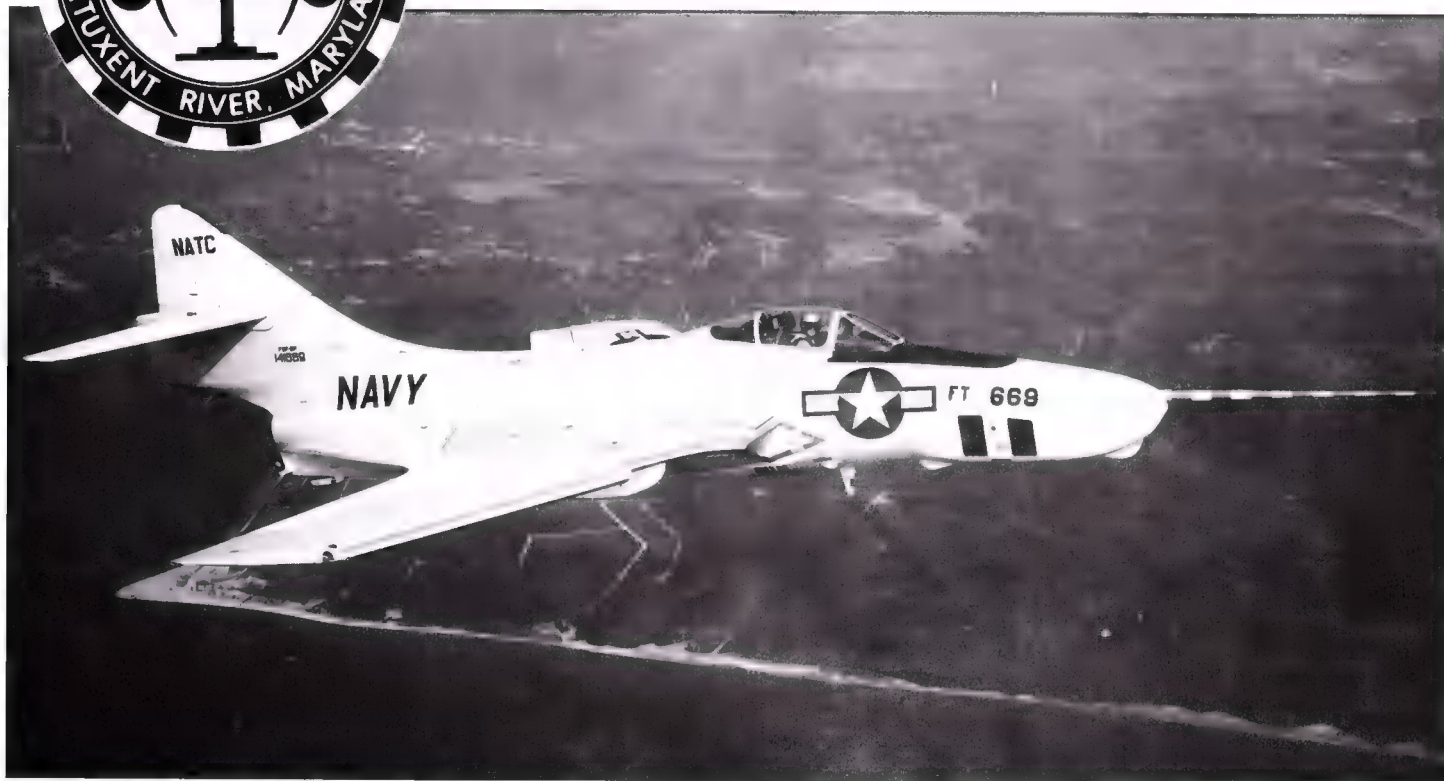


NAVAL AIR TEST CENTER (NATC), NAS PATUXENT RIVER MARYLAND



The F9F-8P was evaluated only briefly at Patuxent River. The evaluation was confined to ensuring that the new extended photo nose profile did not adversely affect flight qualities.

Below, the second production NATC F9F-8P BuNo 141669 in flight over the Maryland shore on 5 June 1956 with "FT" for Flight Test Division on its nose. (SDAM) Bottom, underneath view of the same aircraft on 5 June 1956. (USN via (Peter M. Bowers)

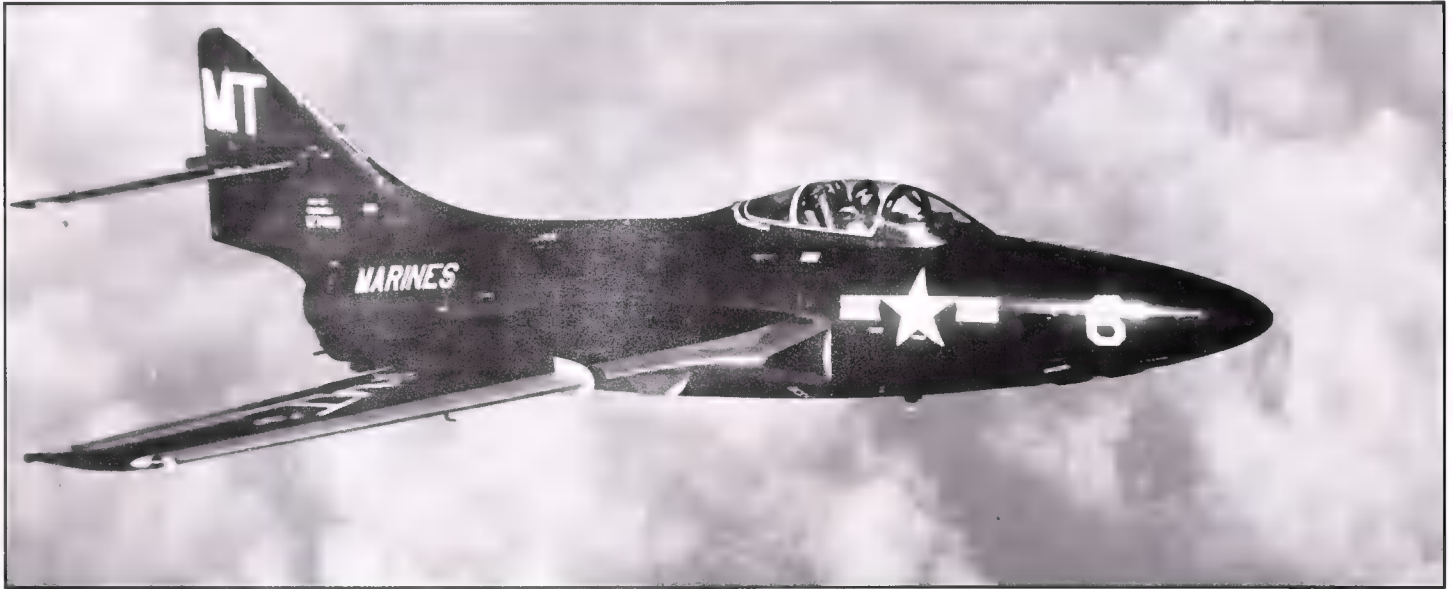


MARINE PHOTOGRAPHIC SQUADRON TWO, VMJ-2

VMJ-2 was established on 15 September 1952 at MCAS Cherry Point, NC. The mainstay of the squadron during the Korean War years was the McDonnell F2H-2P photo-Banshee. The F9F-6P photo-Cougar started joining the squadron in late 1953 and all but replaced the Banshee by the end of 1955. The F9F-8P also arrived in late 1955. (see page 39 bottom). Marine Photographic Squadron Two (VMJ-2) was redesignated Marine Composite

Reconnaissance Squadron Two (VMCJ-2) on 1 December 1955 when its assets were merged with VMC-2.

Below, VMJ-2 F9F-9P BuNo 127480 in flight over MCAS Cherry Point, NC, in 1954. Note white edging around canopy frame. (SDAM) Bottom, VMJ-2 F9F-6P BuNo 134451 at MCAS Cherry Point, NC, on 28 February 1955. (USMC via Fred Roos)





VMJ-2

Above, VMJ-2 F9F-6P BuNo 127480 in flight at Cherry Point, NC, on 19 February 1955. (USMC) At left, VMJ-2 BuNo 128310 in late 1955. (Ginter collection) Below, white nose, wing tip, and rudder check-mark trim was outlined in red. (Peter M. Bowers) Bottom, VMJ-2 F9F-6P BuNo 127492 with red and white camera window covers. (Gordon S. Williams via Burger)



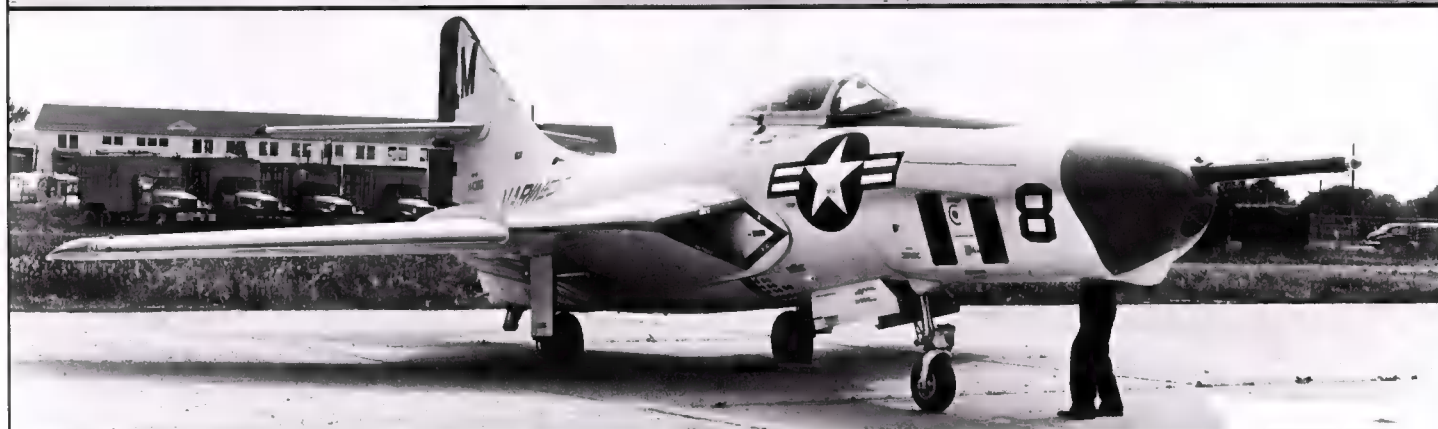
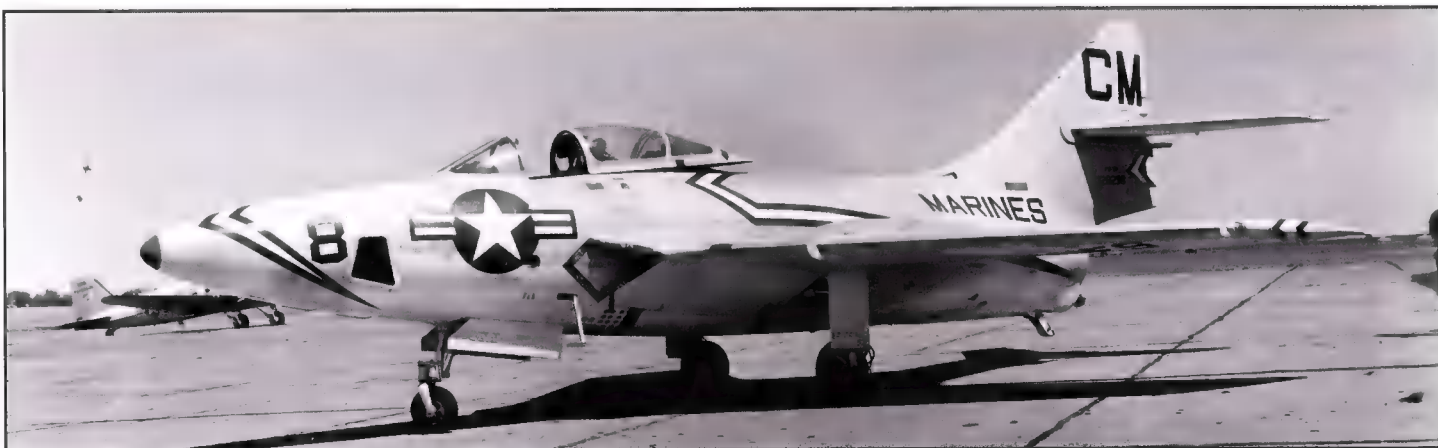
MARINE COMPOSITE RECONNAISSANCE SQUADRON TWO, VMCJ-2

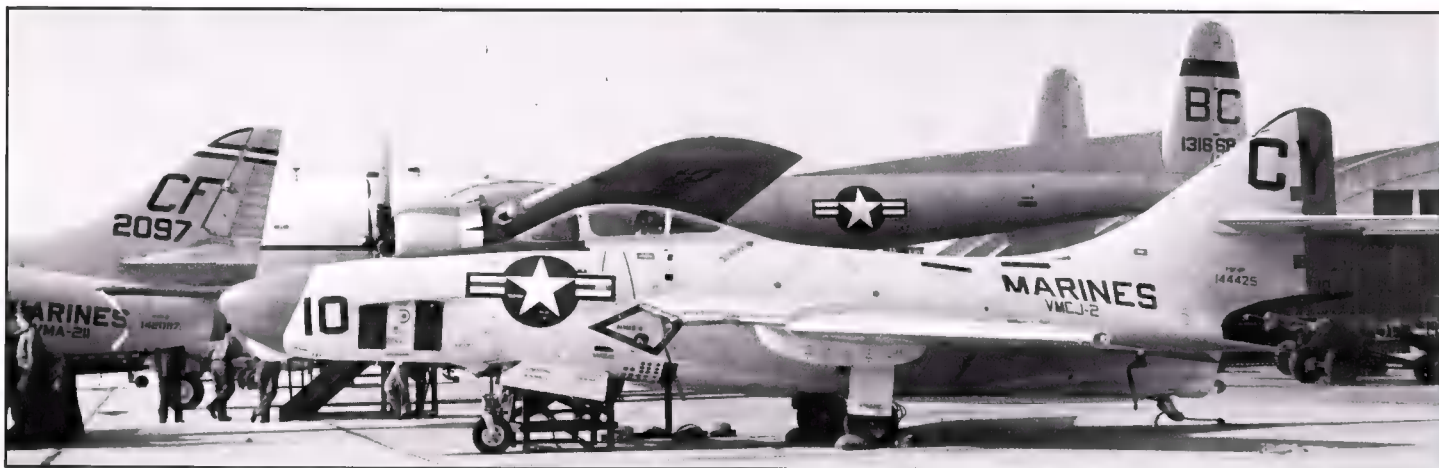


VMCJ-2 was established on 1 December 1955 when VMC-2 and VMJ-2 were merged. Based at MCAS Cherry Point, NC, the unit was assigned to the 2nd Marine Aircraft Wing (MAW-2), Fleet Marine Force (FMF) Atlantic. The squadron received F9F-6Ps and F9F-8Ps from VMJ-2 and various marks of AD Skyraiders from VMC-2. The photo-Cougars were replaced by F8U-1P photo-Crusaders in 1959 and the Skyraiders were replaced with F3D-2Q SkyKnights in November 1957. By

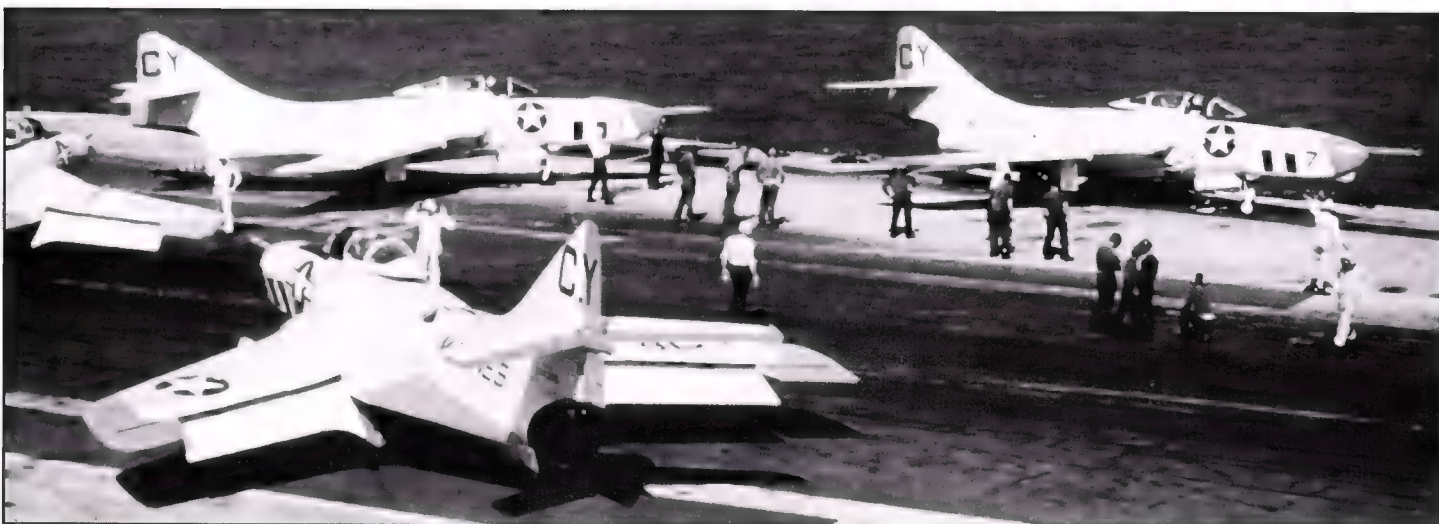
1965, the squadron was flying four different aircraft: the RF-8A, RF-4B, EF-10B and EA-6A. In 1966, the RF-8A and EF-10B were retired and in 1975 VMCJ-2 re-equipped with the EA-6B.

Below, VMCJ-2 F9F-6P BuNo 128298 at NAS Miramar, CA, in May 1956. Wing, nose, fuselage and rudder trim was white outlined in red. (Peter M. Bowers and Doug Olson via Swisher) Bottom, F9F-8P BuNo 144390 with "CM" tail code in December 1955. (NMNA)





Above, VMCJ-2 F9F-8P BuNo 144425 at NAS Jacksonville, FL, on 10 June 1957. Nose, wing, and tail trim was da-glo red. (NMNA) Below, carquals of VMCJ-2 aircraft and pilots aboard the USS Saratoga (CVA-60) in July 1957. (NMNA) Bottom, VMCJ-2 F9F-8P in flight over Cherry Point's runway in 1958. (NMNA)



MARINE COMPOSITE RECONNAISSANCE SQUADRON THREE, VMCJ-3 "EYES AND EARS OF THE CORPS"



VMCJ-3 was established on 1 December 1955 when VMC-3 and VMJ-3 were merged. VMJ-3 was

located at MCAS Miami, FL, and equipped with F9F-5P Panthers. Its assets were transferred to MCAS El Toro, CA, where they were combined with VMC-3's mixed bag of AD Skyraiders and assigned to the 3rd. Marine Aircraft Wing. The squadron's first Commanding Officer was LTCOL W. R. Adams and the unit was originally assigned F9F-5P, AD-5N, AD-5W, and F3D-2Q aircraft. The F9F-5P photo-Panthers soon were replaced with F9F-8P photo-Cougars.

In August 1957, the squadron started preparations for deployment to Japan. In October, LTCOL R. R. Reed took command of the unit and

the squadron arrived in Japan on 19 July 1958 and was assigned to MAG-12. VMCJ-3 was relieved by VMCJ-1 in August 1959 and the squadron returned to El Toro on 5 September and assigned to MAG-33.

The Cougars were replaced with F8U-1P photo-Crusaders in 1960, and finally RF-4B photo-Phantoms in 1966. The squadron was redesignated VMFP-3 on 1 July 1975.

Below, two views of VMCJ-3 F9F-8P BuNo 141722 at MCAS El Toro, CA, on 1 August 1957. (USMC/Clay Jansson via Fred Roos and NMNA)



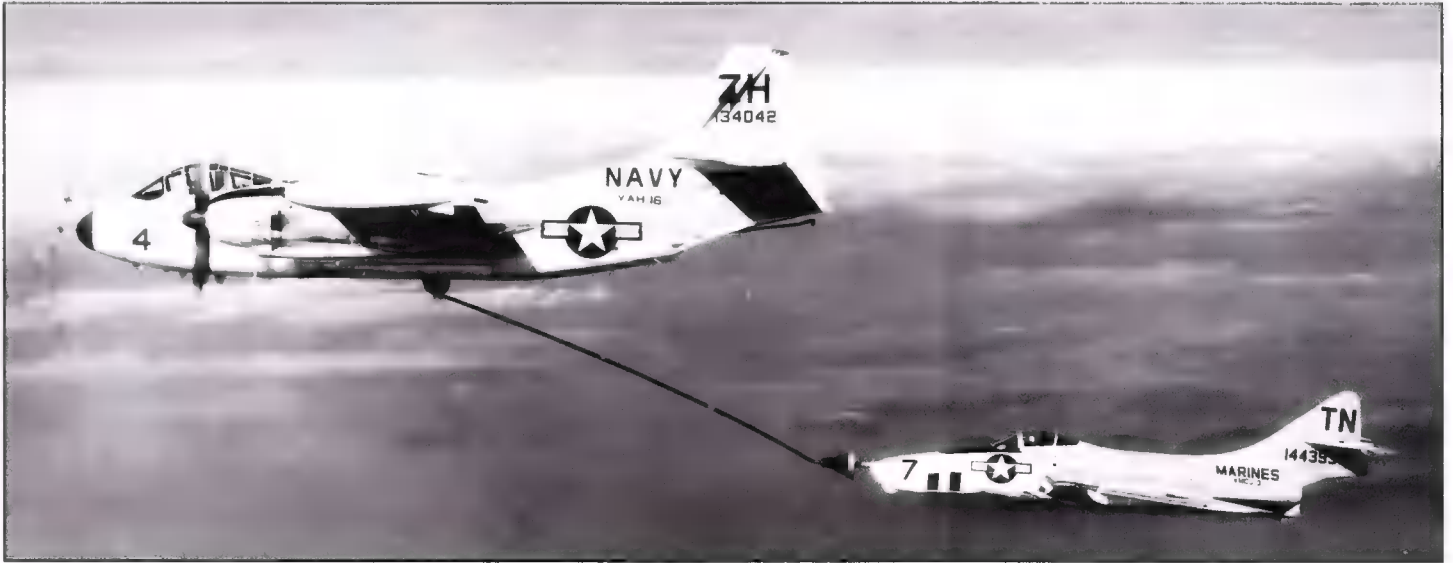


Above, VMCJ-3 flightline at MCAS El Toro, CA, in 1957 with six F9F-8Ps and two F3D-2Q aircraft. (USMC via Fred Roos) Below, VMCJ-3 F9F-8P BuNo 144383 on 14 September 1957. Refueling probe was painted in red and white. (Clay Jansson via Peter M. Bowers) Bottom, VMCJ-3 F9F-8P BuNo 144393 at MCAS El Toro, CA. (Clay Jansson via Swisher)



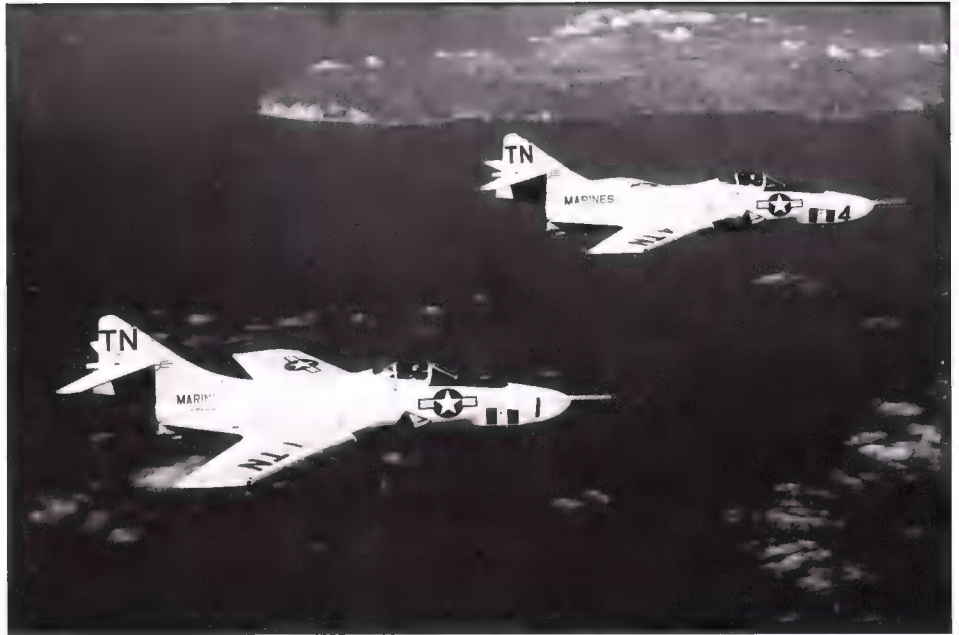


Above, VMCJ-3 F9F-8Ps tanking from a VR-2 R3Y-2 in 1957. BuNo 144377 is in the foreground. (USN) Below, VMCJ-3 F9F-8Ps 144393 (TN/7) and 144383 (TN/3) refueling from a VAH-16 AJ-2 Savage over the Sea of Japan in 1959. (Clay Jansson)





At right, two VMCJ-3 F9F-8Ps in flight over the Pacific. (USMC) Below, VMCJ-3 F9F-8P BuNo 144386 over Southern California in August 1957. (USMC via Fred Roos) Bottom, VMCJ-3 F9F-8P BuNo 144383 in slow flight with gear and flaps down during its deployment to Japan. (via Ginter)

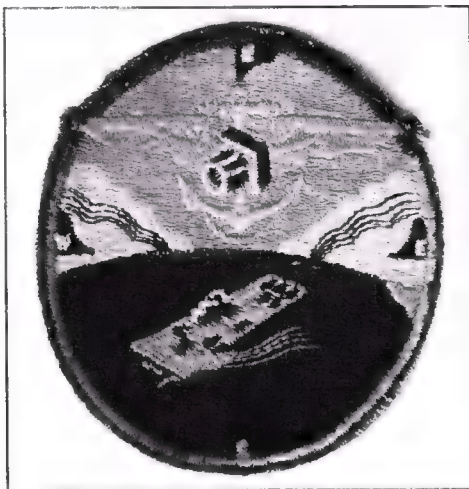




Above, VMCJ-3 F9F-8P BuNo 144382 (TN/2) escorts a H&MS-12 A4D-1 Skyhawk off the Japanese islands in 1958. (via Harry Gann) Below, VMCJ-3 F9F-8P BuNo 144385 (TN/4) escorts a VMA-211 A4D-1 off Japan in 1958. (via Harry Gann)



PHOTOGRAPHIC COMPOSITE SQUADRON SIXTY - ONE, VC-61



VC-61 was established at NAS Miramar, CA, in January 1949 with assets and personnel from disestablished VP-6 (17 January 1949). The first carrier-based photo-birds assigned to VC-61 were Grumman F8F-2Ps. These were later augmented by F4U-4Ps, F4U-5Ps and F6F-2P/5Ps. The squadron initially deployed its Corsairs aboard Korean War carriers until being replaced by Grumman F9F-2P/5P Panthers and McDonnell F2H-2P Banshees. In 1954, the F9F-6P Cougar augmented the unit's Panthers and Banshees and in late 1955 the F9F-8P started to arrive. On 2 July 1956, VC-61 was redesignated VFP-61.

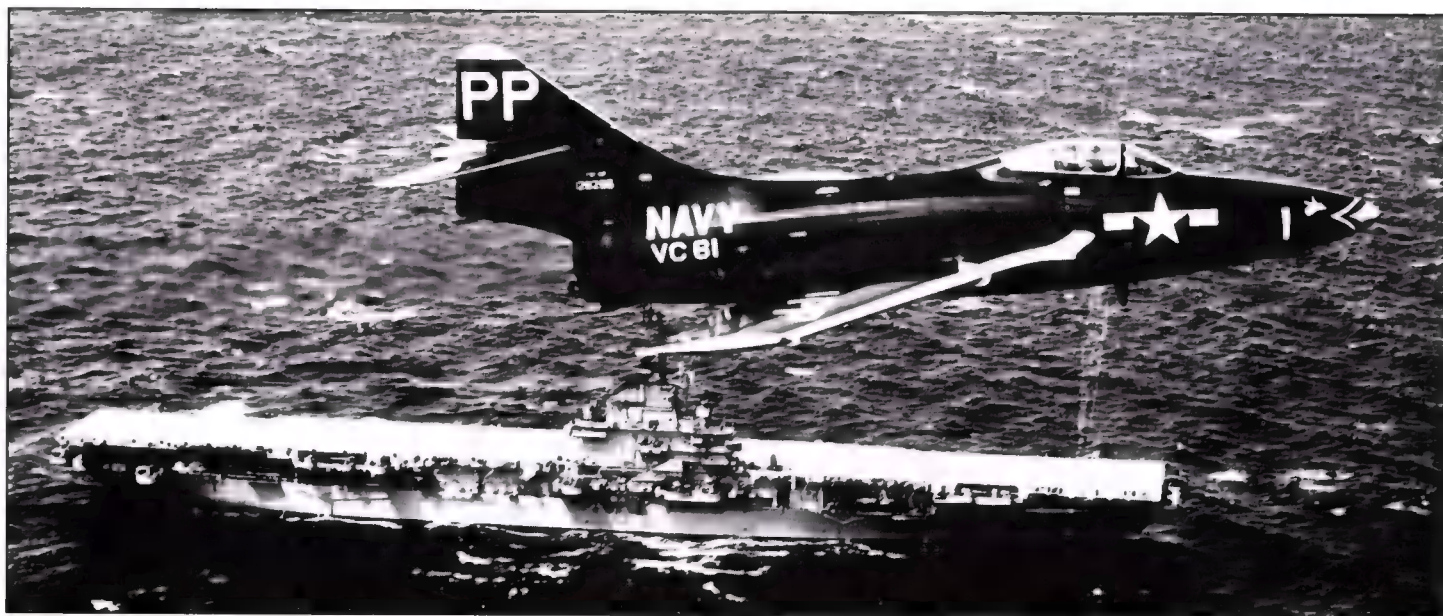
Although VC-61 was a Pacific Fleet unit, Det Fox deployed three F9F-6Ps aboard the Atlantic Fleet's USS Randolph (CVA-15) as Det 36 from 3 February through 6 August 1954. Also in 1954, VC-61 deployed their F9F-6P Cougars aboard the following ships: the USS Boxer (CVA-21) Det George, the USS Kearsarge (CVA-33) Det C, the USS Philippine Sea (CVA-47) Det Bravo, and the USS Yorktown (CVA-10) Det Delta. In 1955, F9F-6P Det George was deployed aboard the USS Hancock (CVA-19). The last F9F-6P Det to deploy was Det Mike aboard the USS Oriskany (CVA-34) in 1956.

Fourteen F9F-8Ps were on hand when the squadron became VFP-61; eight at NAS Miramar, CA, three aboard the USS Wasp (CVA-18) with Det Delta, and three aboard the USS Lexington (CVA-16) with Det Hotel.

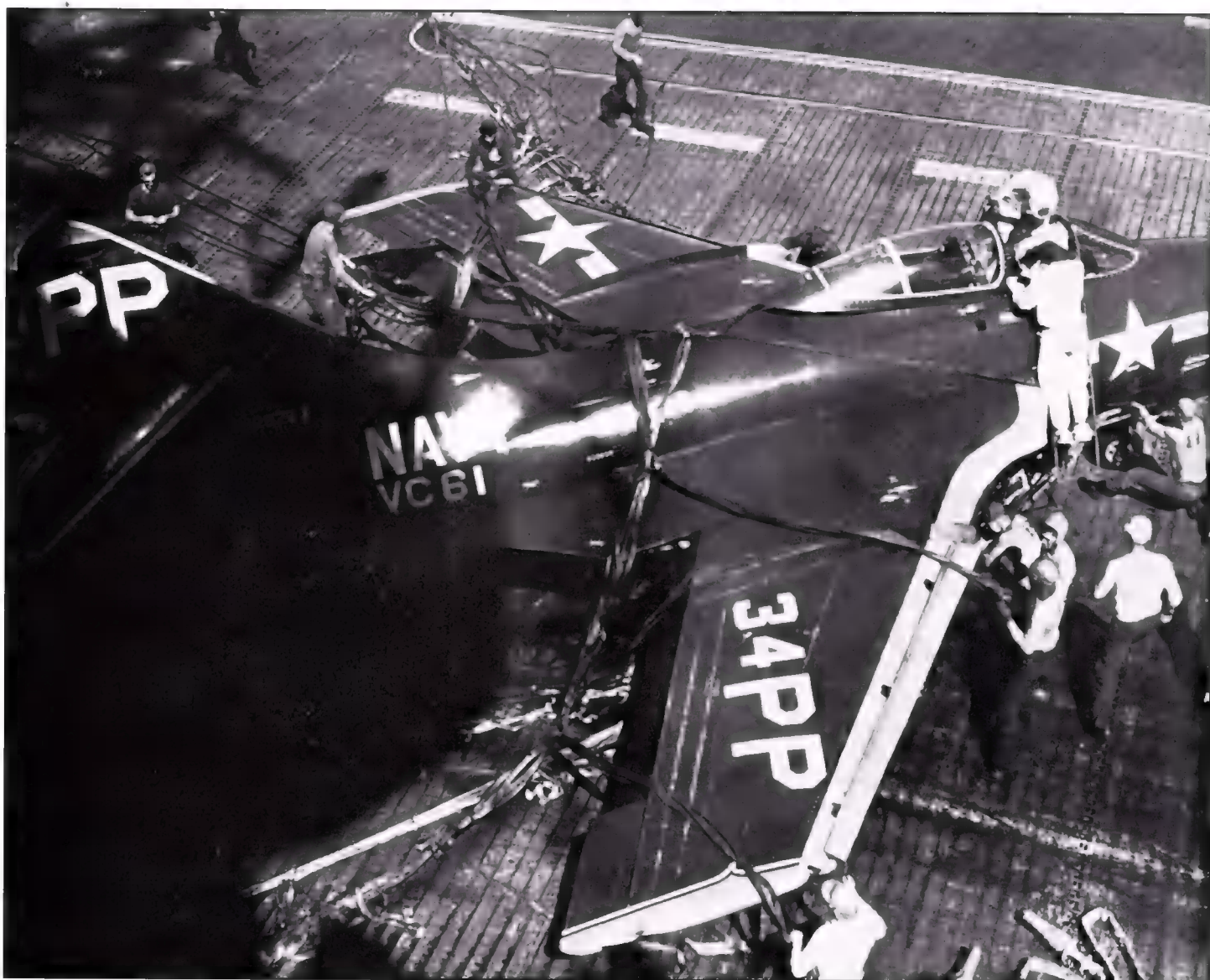


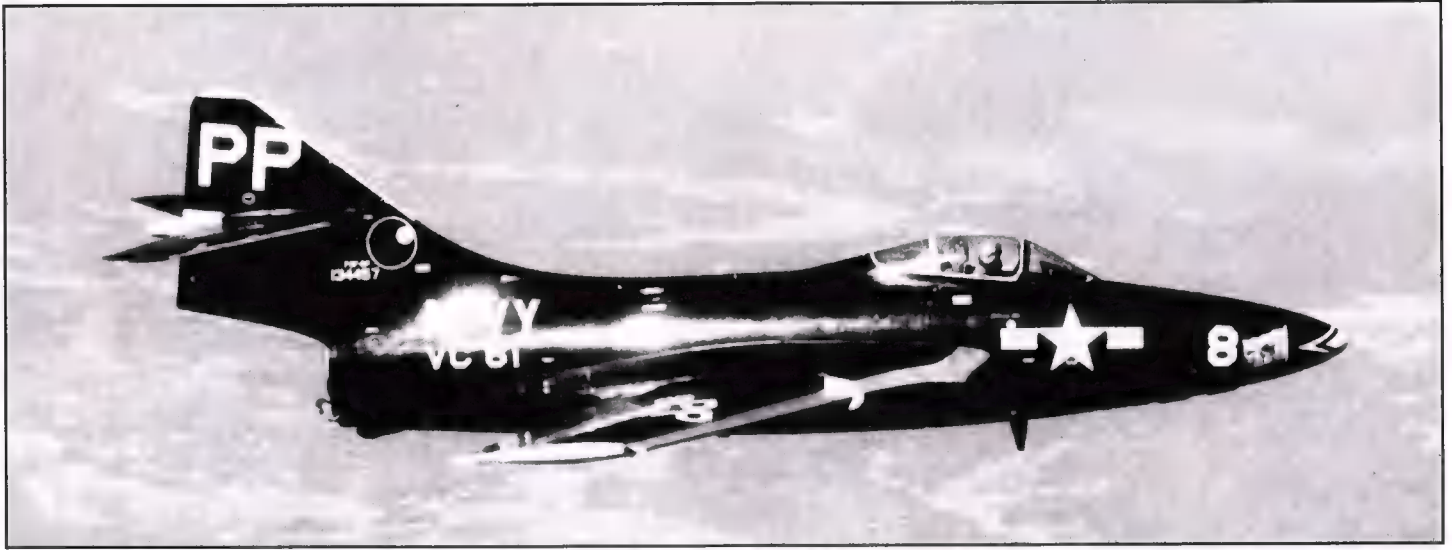
Above, USS Kearsarge (CVA-33) VC-61 crew portrait for their 1954 deployment. (USN) Below, VC-61 maintenance crew pulling tail from F9F-6P BuNo 127481 during the 1954 Kearsarge deployment. Left horizontal stabilizer was sheared off near the tip during a barrier engagement. Rudder and fin tip trim was red. Wing tip was red outlined in white. (USN)





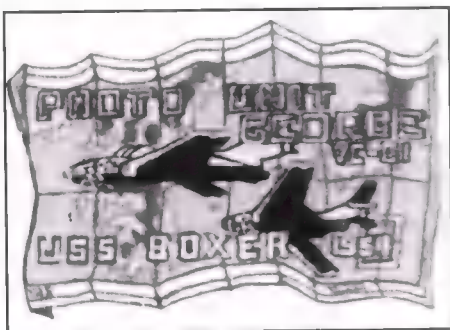
Above, VC-61 Det Fox F9F-6P BuNo 128295 overflies the USS Randolph (CVA-15) during its 1954 Atlantic Fleet deployment. Note small fox head painted on the nose. (USN) Below, VC-61 Det George F9F-6P BuNo 128267 after a barrier crash aboard the USS Kearsarge (CVA-33) in 1954. (USN)



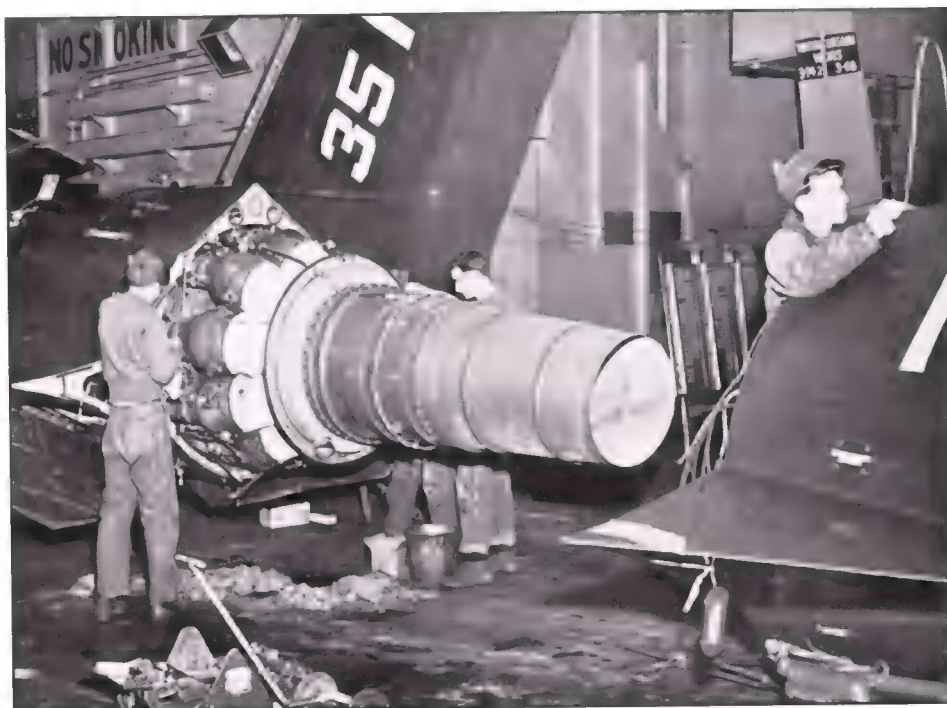


Above, VC-61 Det Bravo F9F-6P BuNo 134457 on 14 September 1954 during the 1954 USS Philippine Sea (CVA-47) deployment to Japan. Note 8-Ball emblem on tail. (NMNA) Below, VC-61 F9F-6P in flight over the San Diego area on 4 March 1954. (NMNA)





At right, hangar deck engine maintenance on a VC-61 F9F-6P in 1954. (USN) Below, VC-61 F9F-6P BuNo 127476 in storage at Oakland, CA, on 6 February 1959. Nose, wing tip, and fin tip trim was red with a thin white outer stripe on the wing tips and nose. (Larry Smalley via Swisher) Bottom, fresh from rework, VC-61 F9F-6P BuNo 134460 at NAS Miramar, CA, on 30 October 1955. (William Swisher)





Above and below, VC-61 F9F-8P BuNo 141700 at Los Angeles International Airport on 24 June 1956. (William Swisher) Bottom, VC-61 F9F-8P rides on elevator aboard the USS Lexington (CVA-16) during 1956. (NMNA)



FIGHTER PHOTOGRAPHIC SQUADRON SIXTY - ONE, VFP-61



VC-61 was redesignated VFP-61 on 2 July 1956. On that date the squadron had five F9F-6Ps and eight F9F-8Ps at NAS Miramar, CA, three Det Mike F9F-6Ps aboard the USS Oriskany (CVA-34), three Det Hotel F9F-8Ps aboard the USS Lexington (CVA-16), and three Det Delta F9F-8Ps aboard the USS Wasp (CVA-18). In September Det Delta from USS Wasp joined Det Hotel aboard the USS Lexington.

Known three-plane photo-Cougar deployments after being designated VFP-61 were as follows: Det Charlie aboard the USS Essex (CVA-9) from 16 July 1956 - 26 January 1957; Det Echo aboard the USS Yorktown (CVA-10) from 9 March - 25 August 1957; Det Golf aboard the USS Lexington (CVA-16) from 19 April - 18

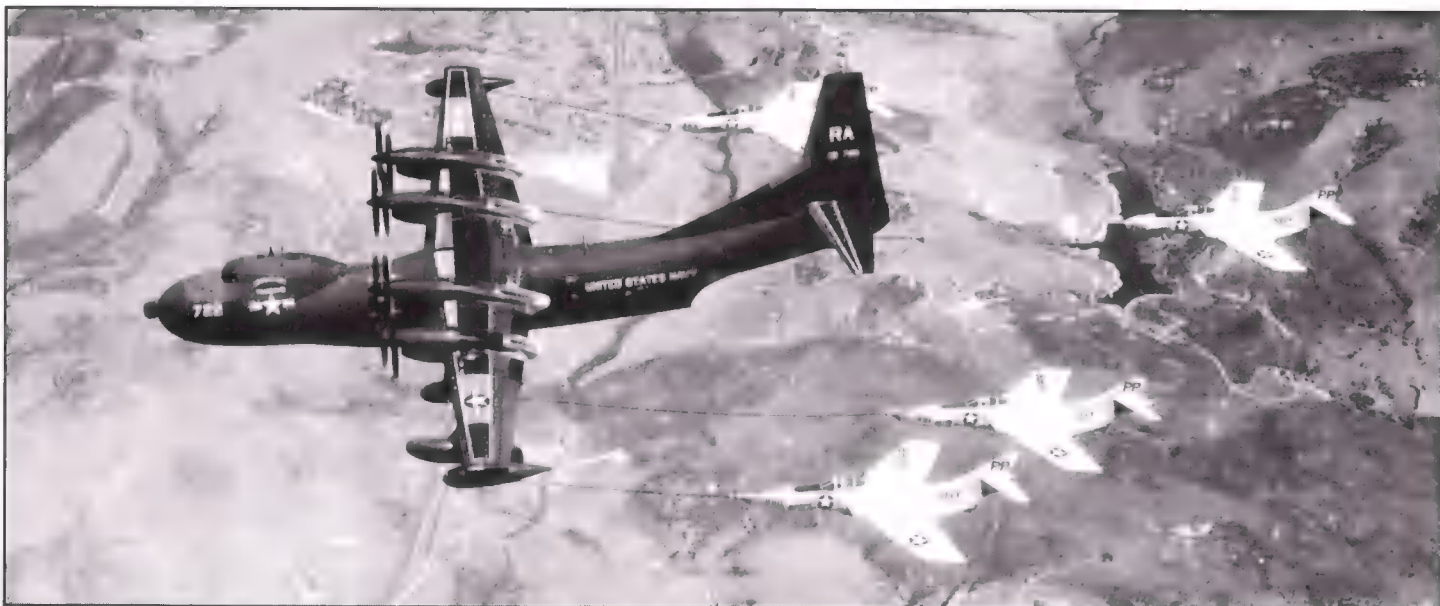
October 1957; Det Fox (F9F-6Ps) aboard the USS Hornet (CVA-12) in 1957; Det Bravo aboard the USS Bon Homme Richard (CVA-31) from 9 July - 11 December 1957; Det Juliet aboard the USS Kearsarge (CVA-33) from 9 August 1957 - 2 April 1958; the USS Hancock (CVA-19) from 18 February - 3 October 1958; Det Kilo USS Hornet (CVA-12) 2 January - 2 July 1958; Det Foxtrot aboard the USS Ranger around-the-Horn cruise 20 June - 20 August 1958; Det Charlie USS Shangri-La (CVA-38) 8 March - 23 November 1958 (Det Charlie and Det Delta spent much of their time at NAF Atsugi); Det Lima aboard the USS Lexington (CVA-16) from 17 July - 18 December 1958; Det Kilo aboard the USS Bennington (CVA-20) from 21 August 1958 - 12 January 1959; Det Hotel aboard the

USS Ticonderoga (CVA-14) from 4 October 1958 - 17 February 1959 (during much of the cruise the detachments three Cougars spent their time at NAS Atsugi); and on the USS Bon Homme Richard (CVA-31) from 1 November 1958 - 18 June 1959.

On 1 July 1959, VFP-61 became VCP-63 at which time Det Charlie was deployed aboard the USS Shangri-La (CVA-38) and Det Lima was aboard the USS Lexington (CVA-16). The unit was redesignated VFP-63 On 1 July 1961. VFP-63 was disestablished in May 1982.

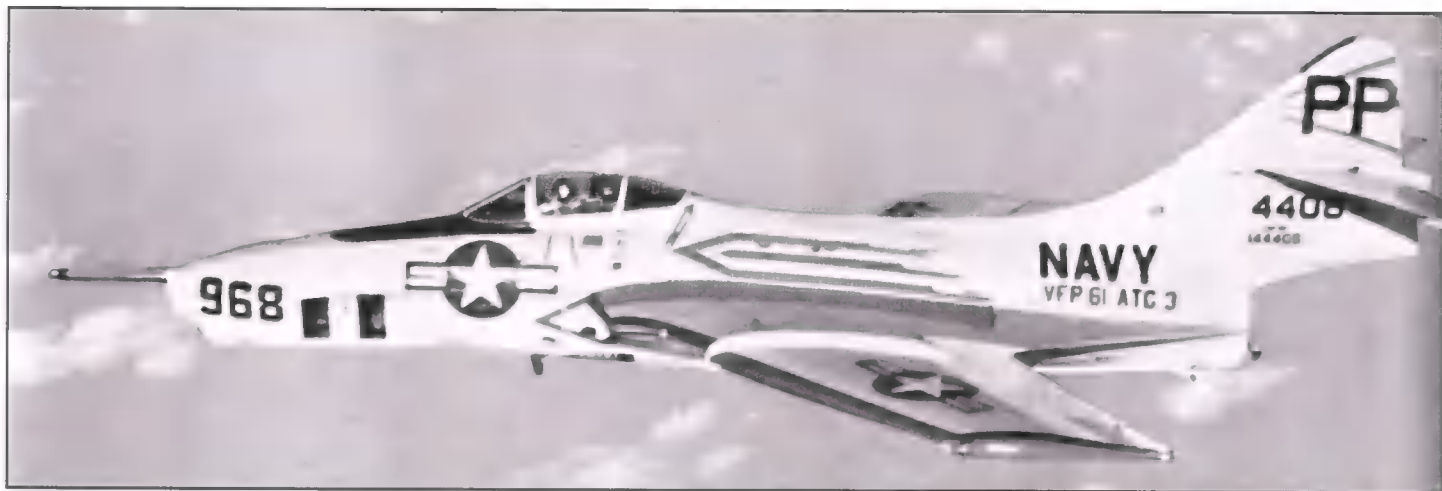
Above and below, VFP-61 F9F-8P over the Miramar area on 9 November 1957 and 14 May 1957 respectively. (NMNA)





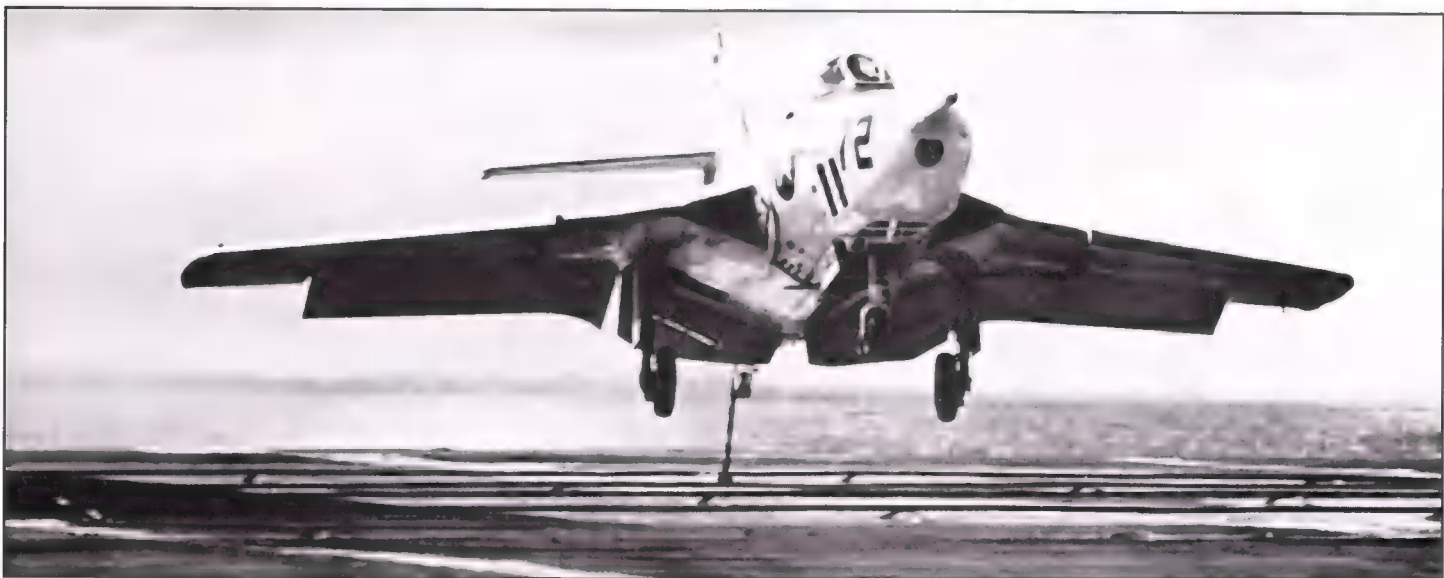
Above, four VFP-61 F9F-8Ps tanking from a VR-2 R3Y Tradewind over Southern California in August 1957. (National Archives)
 Below, VFP-61 F9F-8P BuNo 141675 at NAS Miramar, CA, on 10 August 1957. Previous squadron's designation was painted over and VFP-61 applied. (Smalley via Swisher) Bottom, VFP-61 F9F-8P BuNo 144415 over San Diego, CA, in October 1957. (National Archives)





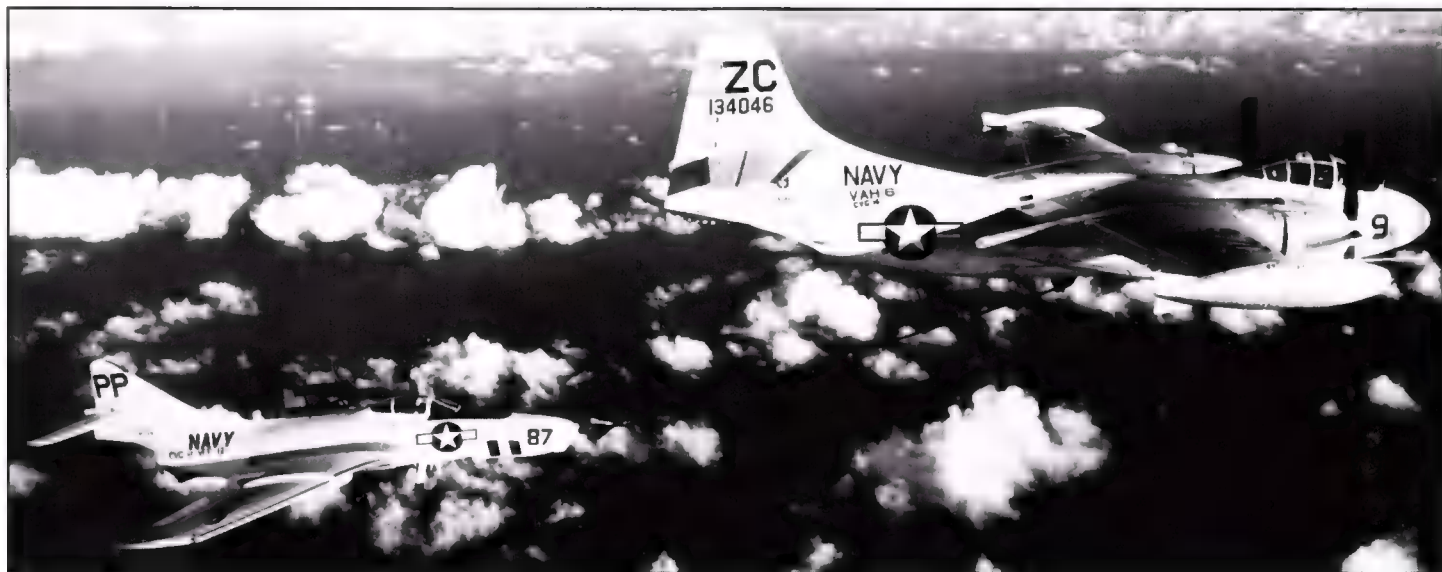
VFP-61

Above, VFP-61 Det Juliet from the USS Kearsarge (CVA-33) in flight in 1957. Fuselage and tail trim was red with a blue stripe in the middle. (USN) At right, VFP-61 Det Charlie misses the wire and continues off the angle during the 1956-57 cruise of the USS Essex (CVA-9). (USN) Below, VFP-61 F9F-8P near Mt Fuji in 1957 while deployed aboard the USS Hancock (CVA-19). (USN) Bottom, Det Bravo VFP-61 F9F-8P catches a wire aboard the USS Bon Homme Richard in 1957. (USN)





Above, two VFP-61 Det Golf F9F-8Ps in formation over the Pacific on 20 July 1957 while assigned to CVG-14 aboard the USS Lexington (CVA-16). (NMNA) Below, Det Golf F9F-8P refueling from a VAH-6 AJ-2 Savage over the Western Pacific on 22 February 1957. (USN) Bottom, Det Golf F9F-8P BuNo 141726 at NAS Miramar, CA, in late 1956 prior to the squadrons deployment aboard Lexington. Tail markings were red and white, fuselage and wing tip lightning bolts were red. (W. Bodie via Roos)





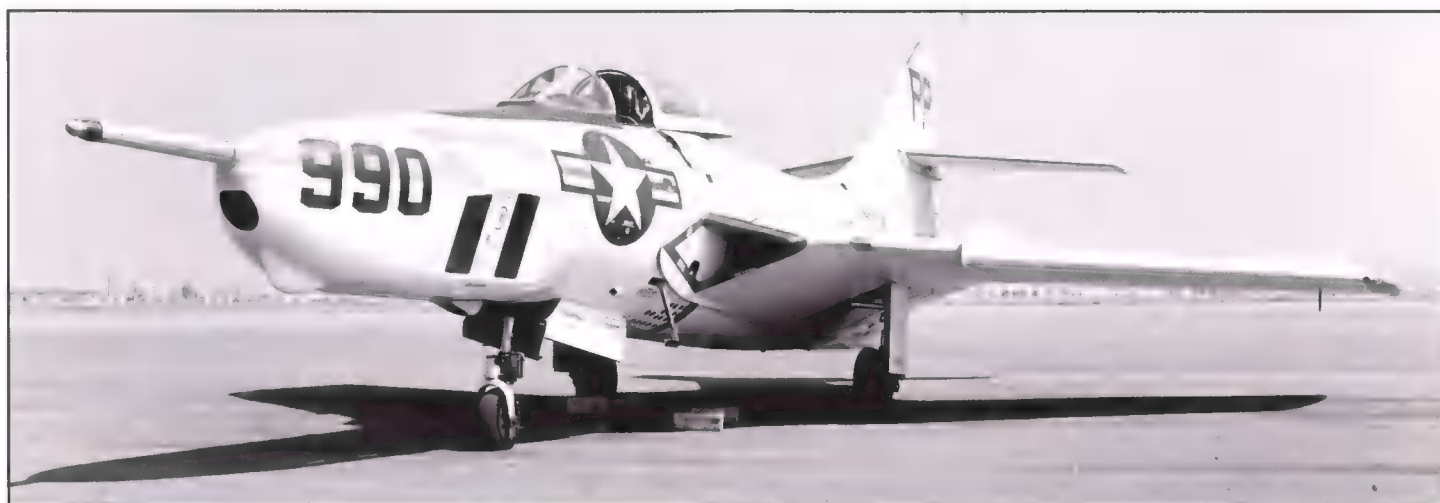
VFP-61

Above, VFP-61 Det Hotel F9F-8P takes the cat aboard the USS Ticonderoga (CVA-14) in 1958-59. (USN) At right, Lexington-based F9F-8P in 1958. (USN) Below, VFP-61 Det Lima F9F-8P BuNo 144422 inflight with a VAH-8 A3D-2 on 20 August 1958 while assigned to the USS Lexington (CVA-16) in 1958. The Cougar's rudder and wing tips were red. (NMNA)





Above, VFP-61 F9F-8P BuNo 141672 touching down at NAS Miramar, CA, in 1957. Nose lightning bolt, wing tips, and rudder stripes were red. (Warren Bodie via Fred Roos) Below, red-trimmed VFP-61 F9F-8P at Mitscher Field, CA, in August 1957. (Warren Bodie via Norm Taylor) Bottom, well-stained belly of a VFP-61 F9F-8P in 1957. (USN via Fred Roos)





Above, USS Yorktown (CVA-10) Det Echo F9F-8P BuNo 141723 has a red diamond on its tail behind the "PP", escorted by two VA-192 F8F-8B Cougars, which sported a yellow diamond on their tails, near Taiwan in May 1957. (NMNA) Below, USS Ticonderoga (CVA-14) Det Hotel F9F-8Ps undergo maintenance at NAF Atsugi, Japan, in 1958-59. (USN)



COMPOSITE PHOTOGRAPHIC SQUADRON SIXTY - THREE, VCP-63



On 1 July 1959, VFP-61 was redesignated VCP-63 when the Douglas A3D-2P Skywarrior joined the unit's F9F-8Ps and F8U-1Ps.

Two VFP-61 Dets were at sea on the date of redesignation, Det C aboard the USS Shangri-La (CVA-38) from 2 March to 3 October 1959 and



Det Lima aboard the USS Lexington (CVA-16) from 25 April to 3 December 1959 with LCDR B. T. Johnson commanding.

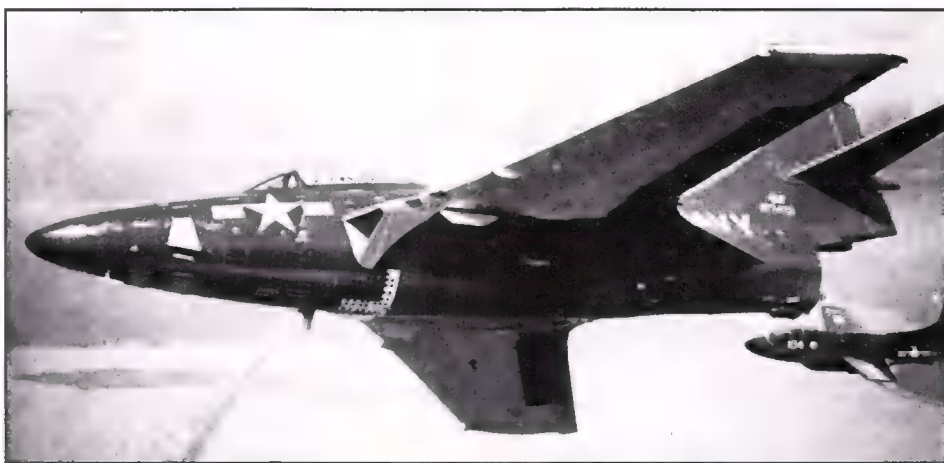
After this deployment, the photo-Cougars were phased out of service with VCP-63. On 1 July 1961, the squadron was redesignated VFP-63.

Above, VCP-63 F9F-8P BuNo 141709 at NAS Miramar on 12 September 1959. (William Swisher) Below, VCP-63 F9F-8Ps BuNos 144411 (PP/972), 144414 (PP/973) and 144389 (PP/971) in 1959 with red fin tips. (NMNA) At top right, VCP-63 F9F-8P BuNo 141709 at NAS Miramar on 12 September 1959. (NMNA) At right bottom, USS Lexington-based VCP-63 F9F-8P BuNos 144423 (PP/963), 144424 (PP/964) and 144389 (PP/971) in flight over the Western Pacific in November 1959. (USN)





COMPOSITE PHOTOGRAPHIC SQUADRON SIXTY - TWO, VC-62



VC-62 was established on 3 January 1949 at NAS Jacksonville, FL. Originally equipped with F8F-2P Bearcats, the squadron augmented these with F4U-4P and -5P Corsairs as well as F6F-5P Hellcats. In 1951, F9F-2P Panthers were added and in 1952 the F2H-2P Banshee became

the mainstay of the squadron during the Korean War. In October 1953, LT Scherrer flew to NAS Quonset Point to pick up the squadron's first F9F-6P, BuNo 128307. VF-174 was responsible for checking out VC-62's pilots including CDR Noel R. Bacon, the Commanding officer. By early December, the

Above, new VC-62 F9F-6P BuNo 127473, shadowed by an F3D-2 of VF-14, passes over the Arlington Bridge near NAS Jacksonville, FL. (USN) Below, four VC-62 F9F-6Ps over the runways at Jacksonville in 1954. BuNo 131255 is in the foreground followed by BuNo 127482. (SDAM)



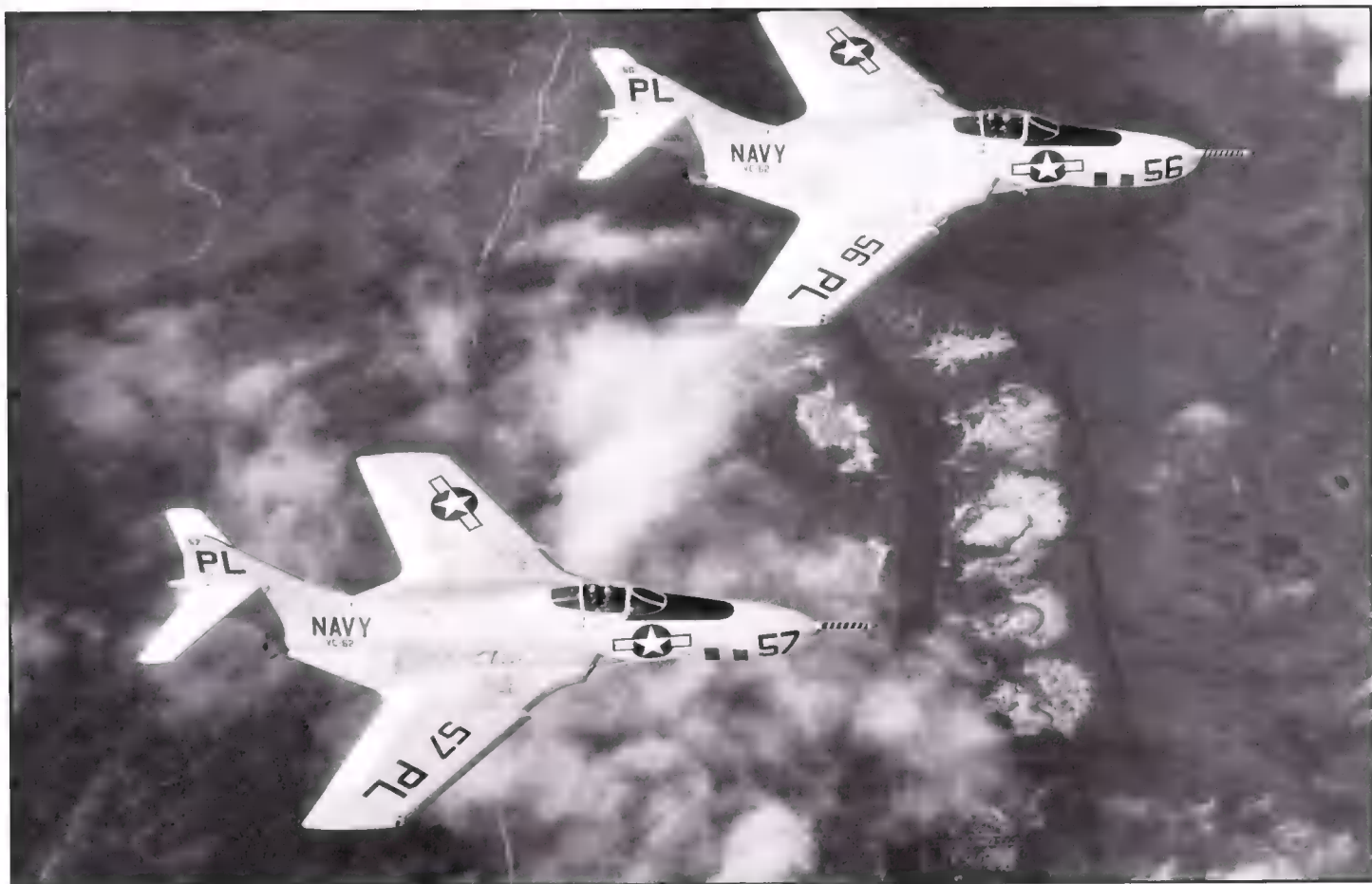


squadron had received eight Cougars and qualified seven pilots. In early 1954, the squadron provided Det 52 for deployment aboard the USS Valley Forge (CVA-45). From 4 May to 10 December 1955, Det 32 was aboard the USS Hornet (CVA-12). About the same time Det 30 boarded the USS Bennington (CVA-20) for pre-deployment work-up. A cruise from the Atlantic to the Pacific with F9F-8Ps on CVA-20 was conducted from 8 September to 20 October 1955 as part of ATG-201. This was followed by a Pacific deployment from 31 October 1955 to 16 April 1956. By 30 June 1956 all but two of the F9F-6Ps had been replaced by F9F-8Ps.

VC-62 was redesignated VFP-62 on 2 July 1956 while still equipped with F2H-2P Banshees and F9F-8P Cougars.

Above, VC-62 F9F-6P flightline at NAS Jacksonville, FL, with BuNo 131255 in the foreground on 10 June 1954. Nose stripe was white. (NMNA) At right, LT David Scherrer arrives at NAS Jacksonville in October 1953 with the squadron's first F9F-6P, BuNo 128307. (USN) Below, four VC-62 F9F-6Ps in flight with BuNo 127481 in the foreground followed by BuNos 128387, 131255, and 127482. (USN)







**VC-62
FIGHTING PHOTO**

At Left, two views of VC-62 F9F-8Ps over the San Diego area on 4 March 1955. (NMNA)
Above, VC-62 F9F-8P BuNo 141684 on the VC-62 flightline in April 1955. Note camera window covers with "remove before flight" pendants attached and the squadrons F2H-2P Banshees in the background. Below, VC-62 F9F-8P BuNo 141701 on display in 1956. Refueling probe was painted in a red and white barber-pole design (NMNA)

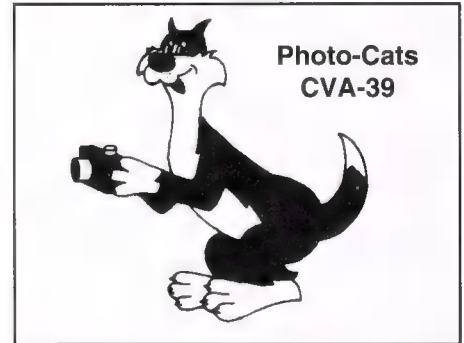


FIGHTER PHOTOGRAPHIC SQUADRON SIXTY - TWO, VFP-62



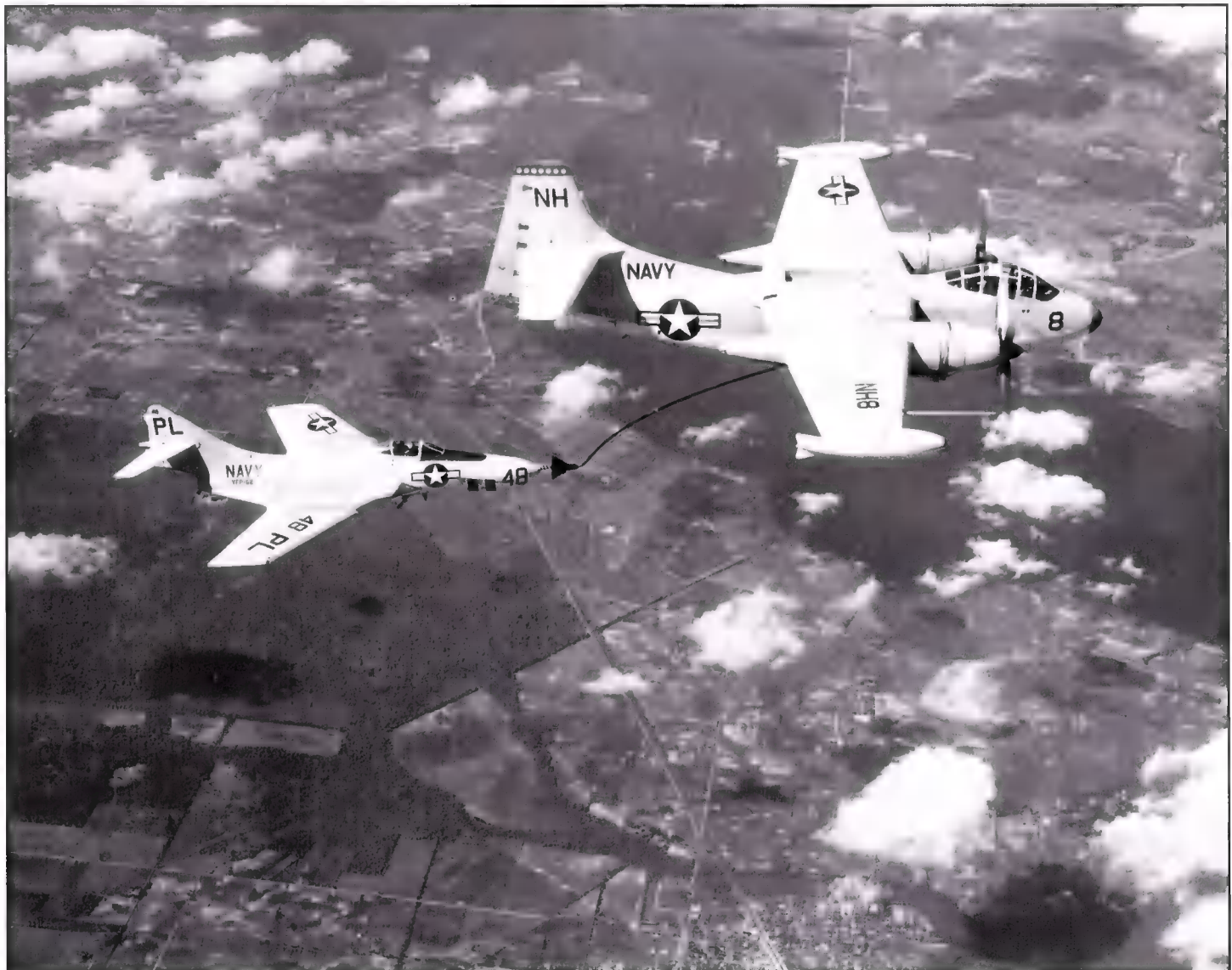
VC-62 was redesignated VFP-62 on 2 July 1956 while flying F2H-2Ps and F9F-8Ps. In 1958, these aircraft started to be replaced with F8U-1P Crusaders.

VFP-62 Det 34 "Photo Cats", commanded by LCDR C. A. Hooper, commenced operations in August 1956. The unit spent one month aboard the USS Franklin D. Roosevelt and then returned to NAS Jacksonville for work-ups for a cruise aboard the USS Lake Champlain (CVA-39) commencing on 21 January 1957. Det 36 and Det 43 also deployed in 1956/57, aboard the USS Randolph (CVA-15) and USS Saratoga (CVA-60) respectively. Also deployed aboard the USS F. D. Roosevelt (CVA-42) was one Cougar assigned to Det 37. Det 30 was aboard the USS Bennington (CVA-20) from 15 October 1956 to 22 May 1957 on a Western Pacific cruise. In 1958, VFP-62 Cougars deployed aboard four carriers. These were: Det



33 aboard the USS Intrepid (CVA-11); Det 36 aboard the USS Randolph (CVA-15); Det 43 aboard the USS Saratoga (CVA-60); and Det 45 aboard the USS Essex (CVA-9). In

Below, VFP-62 F9F-8P BuNo 141693 tanking from a VC-7 AJ-2 in 1956. (NMNA)





1959, Det 33 deployed for a second time aboard Intrepid as did Det 45 aboard Essex.

The squadron was disestablished on 5 January 1968.



Above, VFP-62 F9F-8P from the USS Lake Champlain (CVA-39) in 1957. (USN) At right, VFP-62 Det 32 F9F-8P being hoisted aboard the "Champ" prior to their 1957 cruise. (USN) Below, VFP-62 BuNo 141704 Det 30-56 F9F-8P takes the barrier on 20 April 1957 aboard the USS Bennington (CVA-20). LT J. R. Parce was the pilot. (NMNA)





VFP-62

At left, VFP-62 Det 43 F9F-8P BuNo 144417 takes the wire aboard the USS Saratoga (CVA-60) in 1958 with a VA-34 A4D-1 in the foreground. (NMNA) Below, VFP-62 F9F-8P BuNo 141388 being refueled by a VA-42 AD-7 Skyraider. (USN) Bottom, VFP-62 "Look" (GA/902) and "Life" (GA/901) in flight in 1958. (NMNA)



VFP-62

1958



At right, three Det 45 VFP-62 F9F-8Ps from Det 45 aboard the USS Essex (CVA-9) in 1958. (USN) Below, USS Saratoga (CVA-60) based VFP-62 F9F-8P from Det 43 in flight over the Pacific in 1958 with an Air Wing F8U-1 Crusader, F3H-2M Demon, and A4D-1 Skyhawk. (USN)





VFP-62

Above, Det 45 VFP-62 F9F-8P BuNo 144421 makes a barrier engagement aboard the USS Essex (CVA-9) 9 July 1959. VFP-62 was painted in red above Navy and USS Essex was painted below Navy, also in red. (USN) At left, Det 45 VFP-62 BuNo 144421 overflies the Essex on 12 February 1960. (NMNA) Below, Det 45 VFP-62 F9F-8P BuNo 144401 from the USS Essex (CVA-9) on 22 May 1959 with the moon as a back-drop. This appears to be the twilight deployment of the F9F-8P photo-Cougar in Navy fleet squadron service. (NMNA)



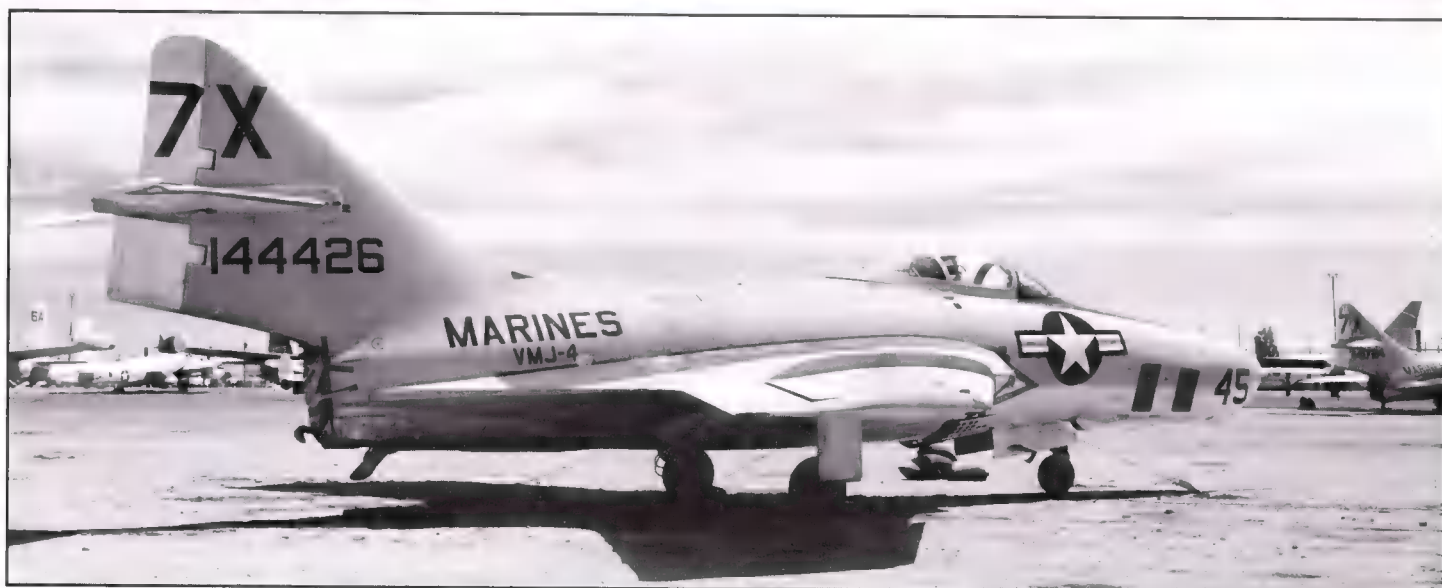


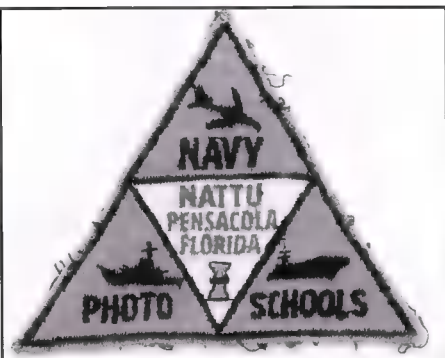
MARINE PHOTOGRAPHIC SQUADRON FOUR, VMJ-4

As the F9F-8P was phased out of fleet squadrons, a majority were delivered to NAS New Orleans and the reserves.

Below, VMJ-4 F9F-8P BuNo 141695 at MCAAS Yuma, AZ, in July 1965. (NMNA)
Below middle, well-preserved F9F-8P at

NAF Litchfield Park, AZ, on 21 March 1966 from an unknown Navy sister squadron to VMJ-4. (William Swisher)
Bottom, VMJ-4 F9F-8P BuNo 144426 on 21 March 1966. This aircraft is preserved by the Pima County Air and Space Museum. Note BuNo 141724 in the right background. (William Swisher)

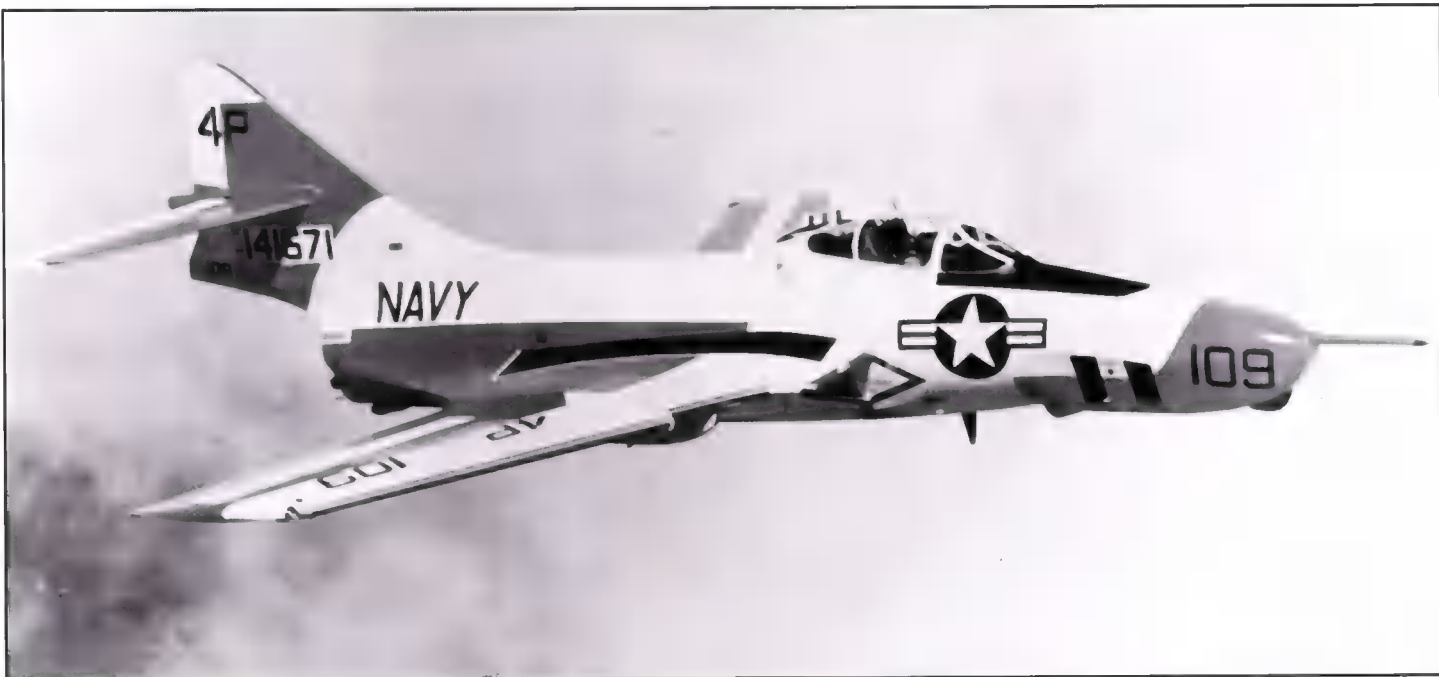




NAVAL SCHOOL OF PHOTOGRAPHY NAS PENSACOLA, FLORIDA

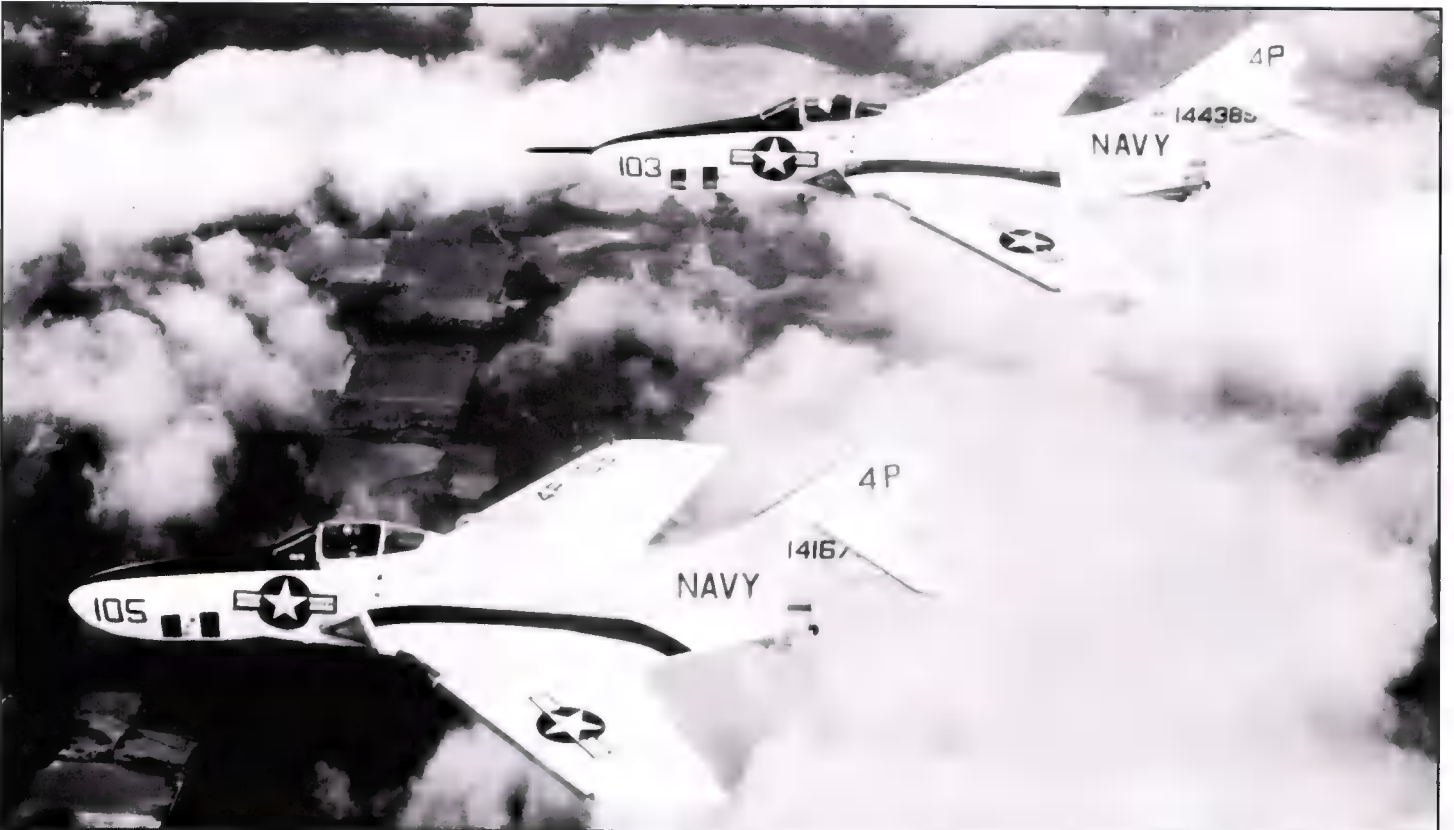
The Naval Air Technical Training Unit known as the Naval School of Photography at NAS Pensacola, FL, utilized both the F9F-6P and the F9F-8P for training aircraft. The aircraft were painted white with orange trim for high visibility.

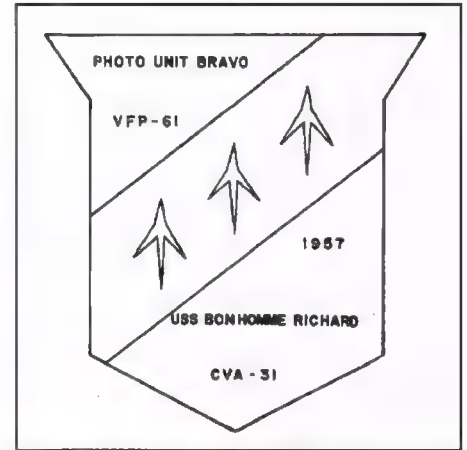
Below, Naval School of Photography F9F-8P BuNo 141671 in flight over the Pensacola area in 1961. (NMNA) Bottom, an F9F-6P assigned to the Pensacola-based unit in 1957. The upper camera bay door was open for maintenance and the flaps were down. (Grumman)





Above, F9F-8P BuNo 141706 shadows three T2V-1 Seastars. (USN) Below, left side view of 141706 in flight in June 1959. (NMNA) Bottom, two Naval School of Photography F9F-8Ps in flight in May 1961. (NMNA)

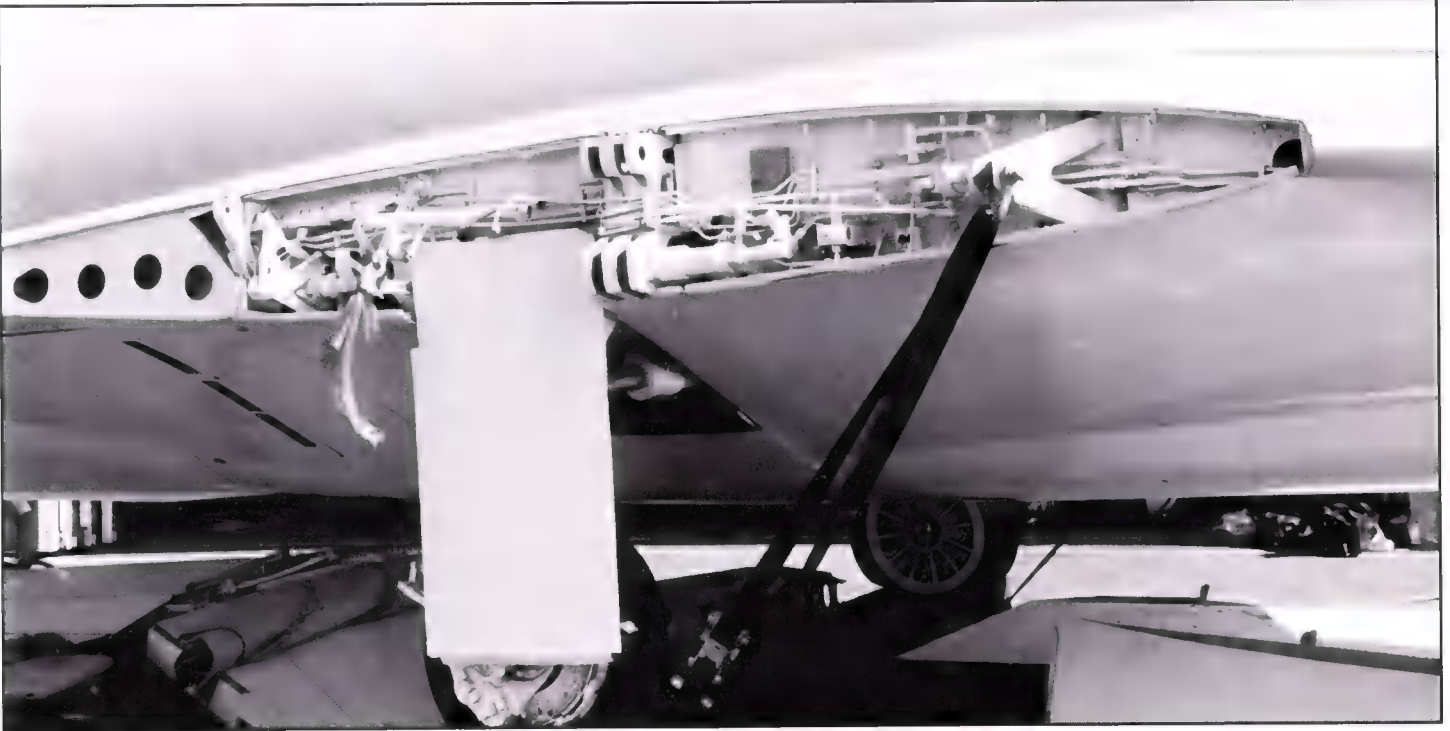




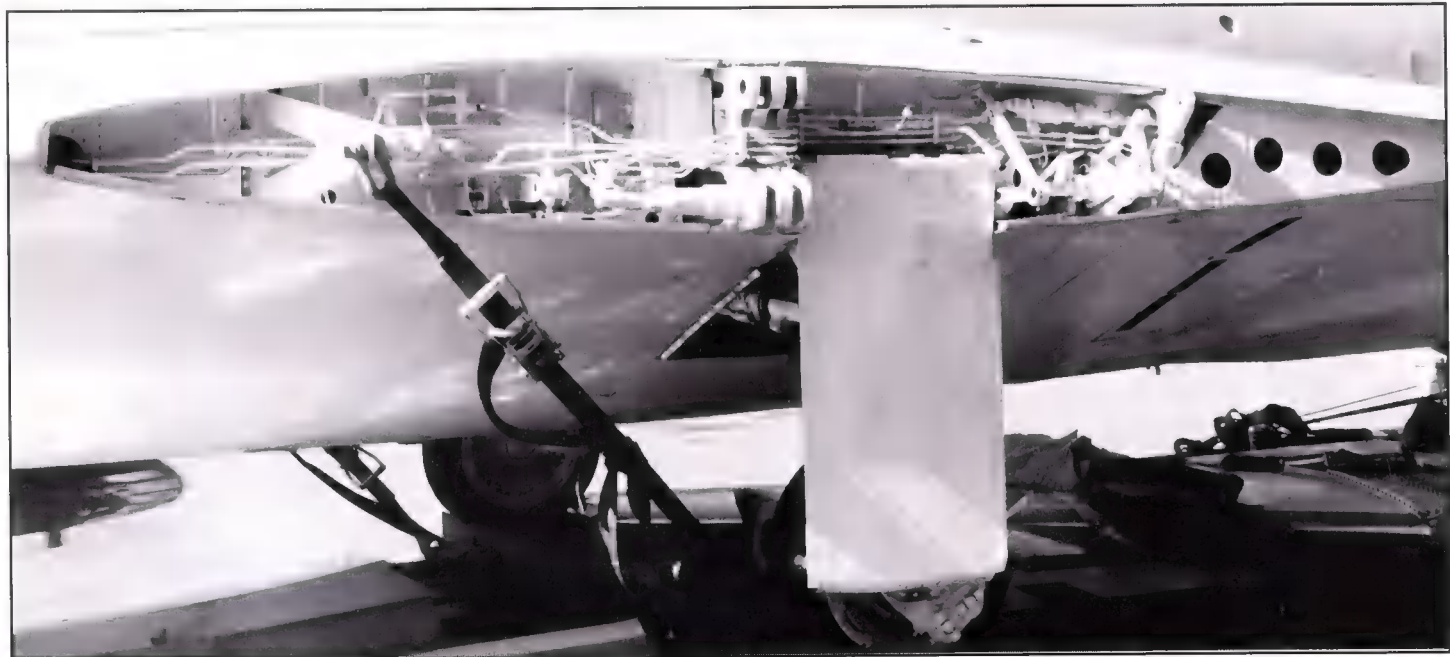
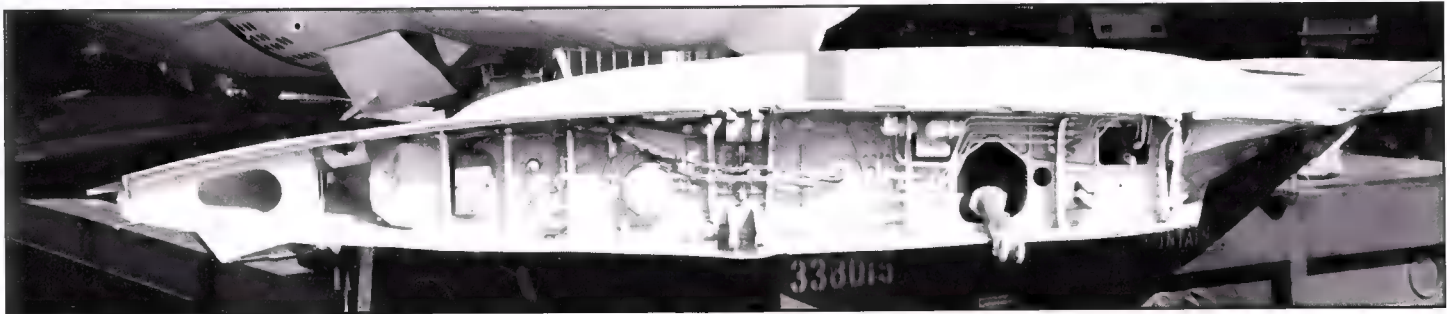
Below, camera loading in an F9F-6P assigned to an unidentified unit "TPC". Anyone having knowledge of this unit, contact Steve Ginter or the Tailhook Association. (NMNA)



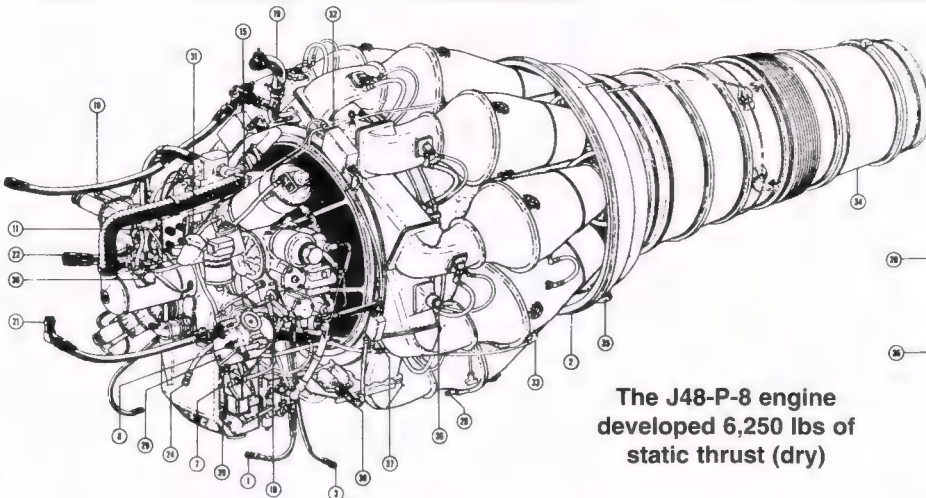
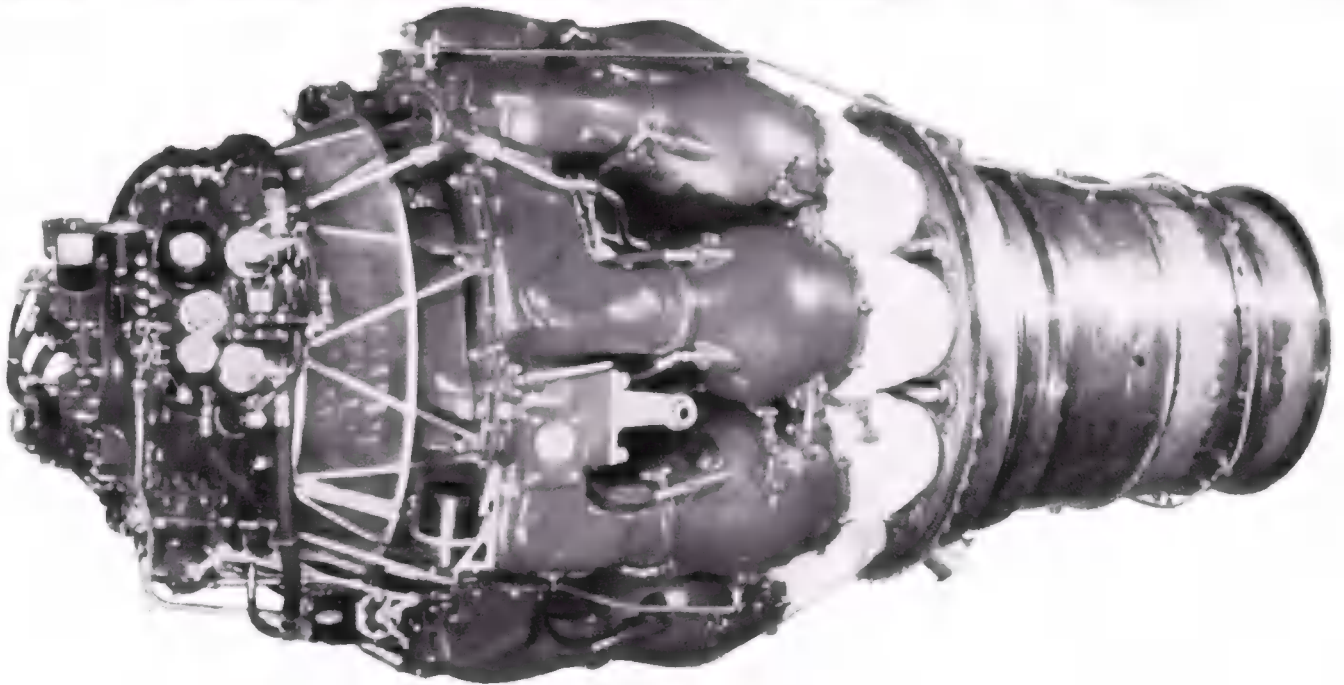
F9F-8P COUGAR WINGFOLD



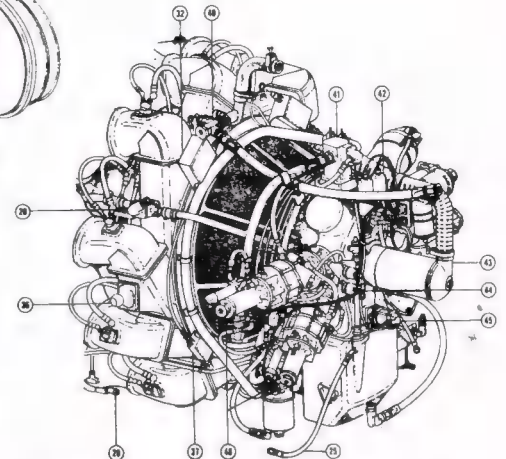
Above, inner right Cougar wingfold area seen with wing removed. Good view of outer landing gear door. Below, outer right wing wingfold area of removed Cougar wing. Bottom, inner left Cougar wingfold area after restoration in 1988. (Ginter)



F9F-6P/8P PRATT AND WHITNEY J48-P-8 ENGINE



The J48-P-8 engine developed 6,250 lbs of static thrust (dry)

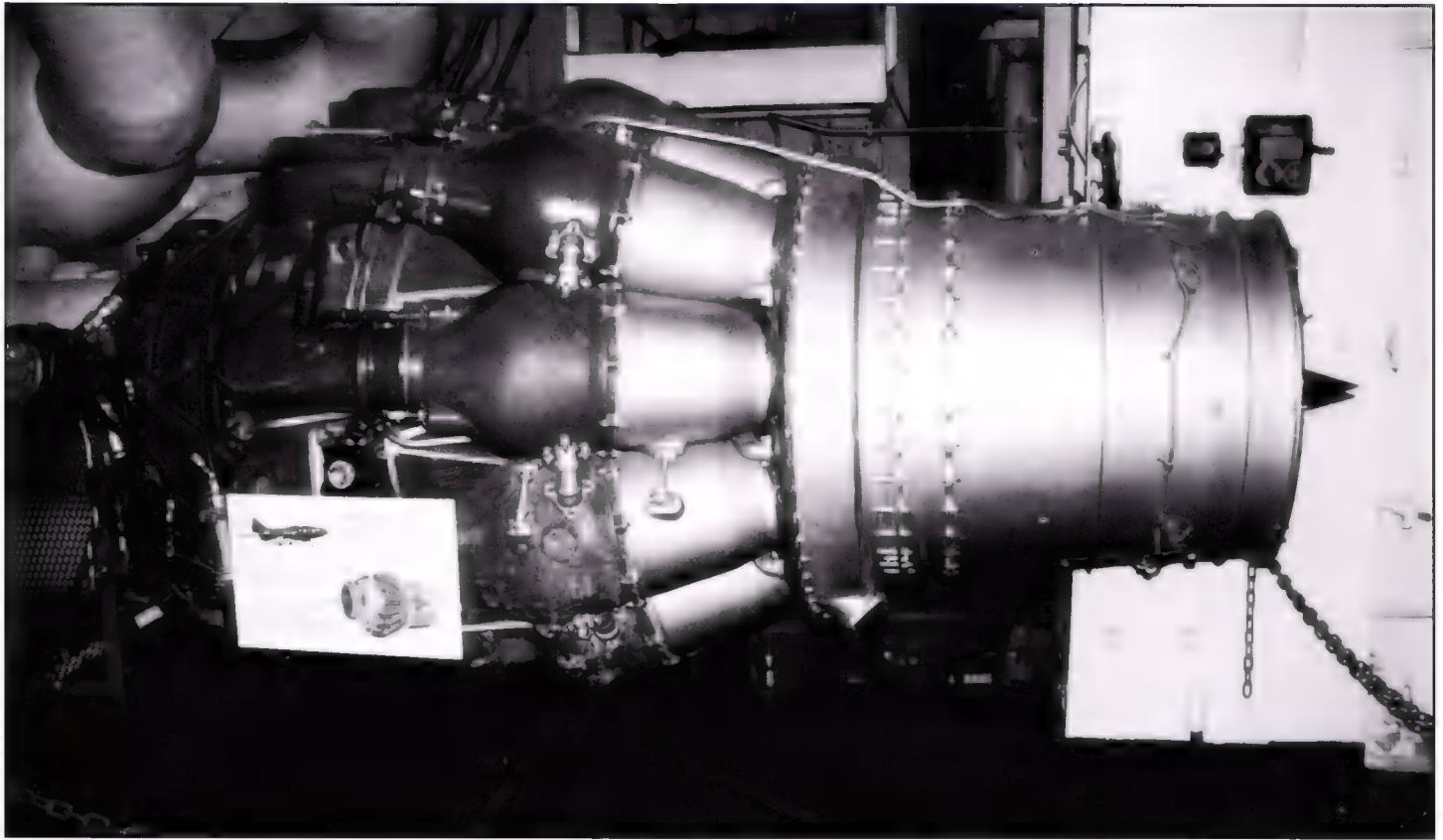


- 1.) Drain Collector Tank Connection and Fuel System Drain Line
- 2.) Engine Fireseal Baffle Assembly
- 3.) Pressure Balancing Scupper and Engine - Driven Fuel Booster Pump Vent Line
- 4.) DC External Power Receptacle Assembly
- 5.) Tip Tank Fuel System Transfer Pump Installation
- 6.) Engine Mount Clamp Fitting
- 7.) Hydraulic Pump Discharge Line and Pump Discharge Elbow
- 8.) Hydraulic Pump Case Drain Line and Pump Case Drain Fitting
- 9.) Generator DC Output Cable
- 10.) Engine Control Rod and Fuel Control Lever
- 11.) Engine Electrical Cables and Receptacles
- 12.) Booster Coil Relay Box Assembly
- 13.) Water Injection Tank Fillerneck

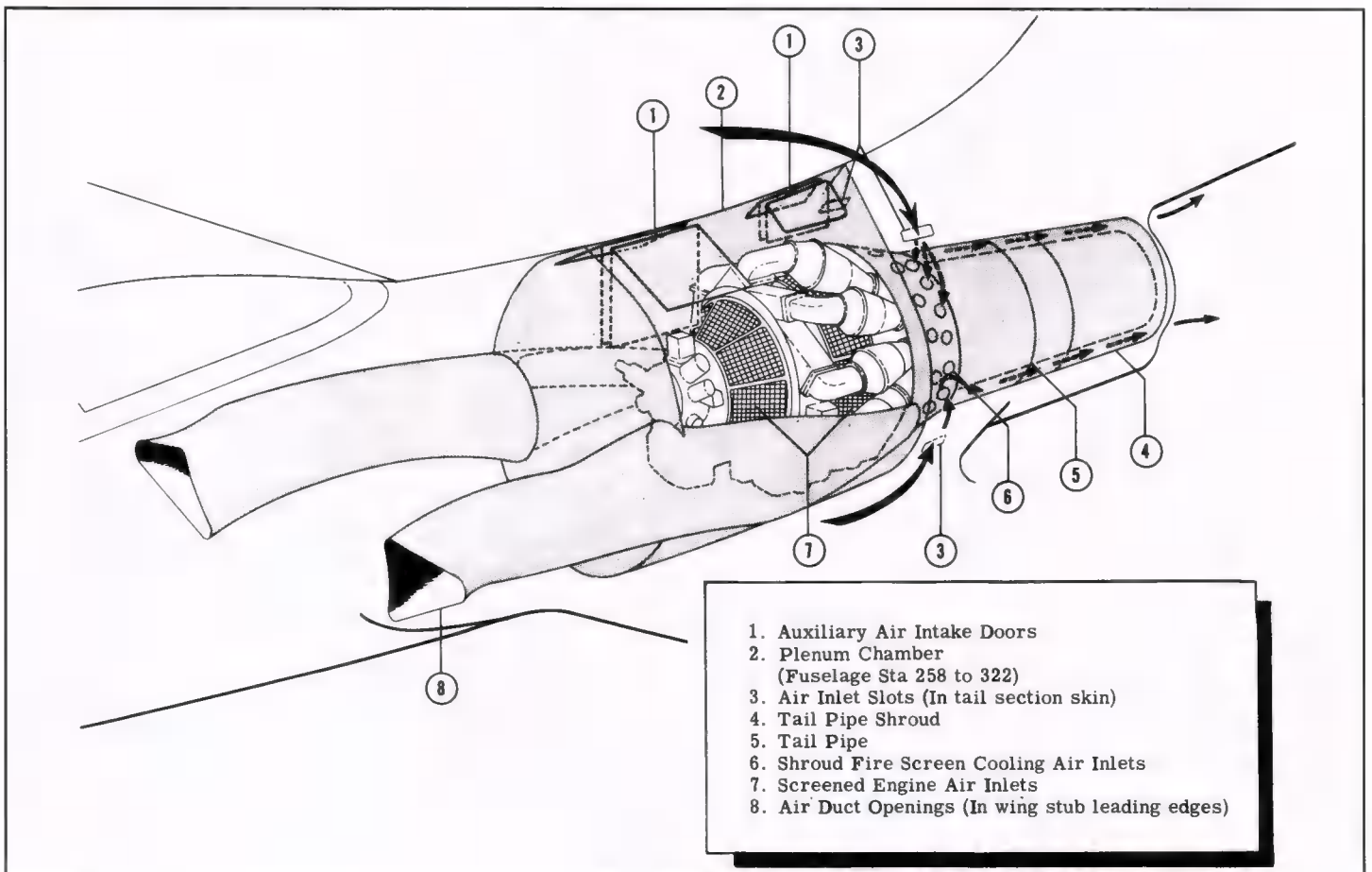
- 14.) Engine Connector Box Electrical Ass.
- 15.) Starter Cables and Starter
- 16.) Generator Cut-Out Box Electrical Ass.
- 17.) AC Generator Cut-Out Box Cable
- 18.) Water Injection Shut-Off Valve and Air Line to Engine
- 19.) Cabin Pressurization System Ducts
- 20.) Water Injection System Fluid Line and Engine Inlet Connection
- 21.) Hydraulic Reservoir Outlet Connection and Supply Line to Engine Pump
- 22.) Fuel Supply Lines
- 23.) Fuel System Main Shut-Off Valve Installation
- 24.) Hydraulic Seepage Pump Drain Lines
- 25.) Engine Oil Sump Overboard Drain Elbow and Line
- 26.) Tip Tank Fuel System Selector Valve
- 27.) Lower Engine Mount Rod and Bottom Engine Suspension Bracket
- 28.) Combustion Chamber Drain Lines and Fittings

- 29.) Engine - Driven Hydraulic Pump
- 30.) Radio Noise Filter Capacitor Assembly
- 31.) Oil Sump Fillerneck Assembly
- 32.) Ignition Exciter Unit
- 33.) Igniter Plug
- 34.) Flexible Tailpipe Assembly
- 35.) Cooling Air Outlet Connection Clamp
- 36.) Engine Suspension Trunnion
- 37.) Compositor
- 38.) Fuel Pressure Warning Switches Installation
- 39.) Fuel Shut-Off Actuating Mechanism Installation
- 40.) Water Injection System Pressure Regulating Valve
- 41.) Engine - Driven Fuel Boost Pump
- 42.) Fuel and Oil Pressure Transmitter Installation
- 43.) Generator
- 44.) Fuel Pressure Warning Switch Inst.
- 45.) Tachometer Generator
- 46.) Top and Bottom Fuel Pumps

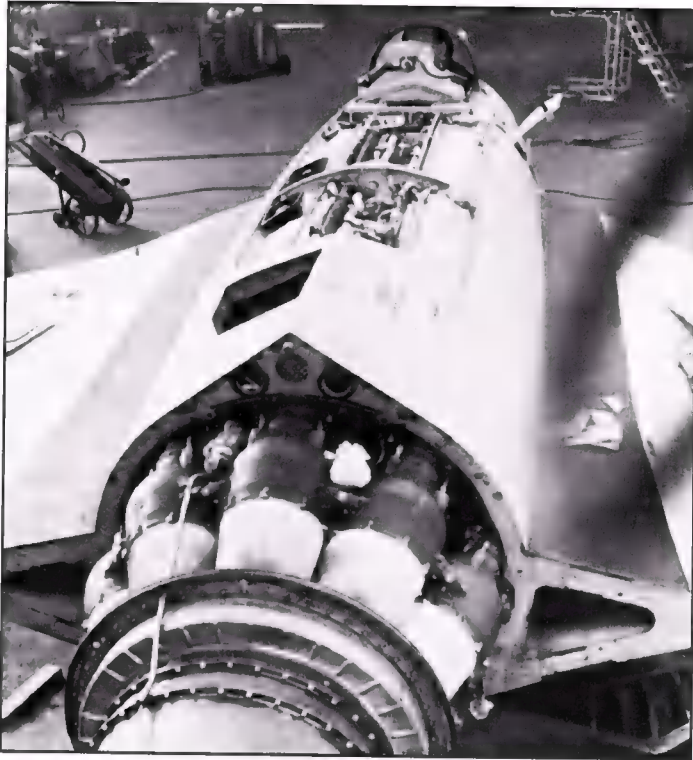
F9F-6P/8P PRATT AND WHITNEY J48-P-8 ENGINE



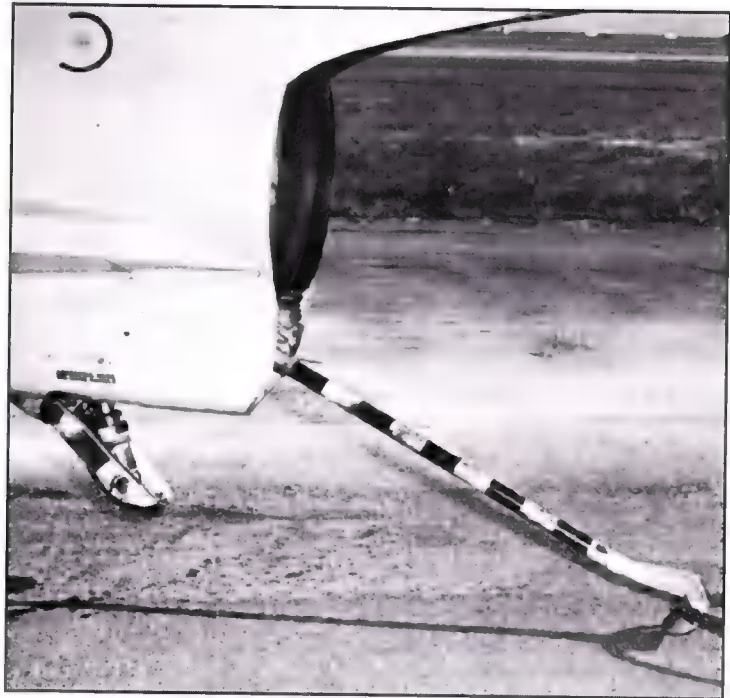
COUGAR ENGINE AIR SYSTEM



J48-P-8 ENGINE

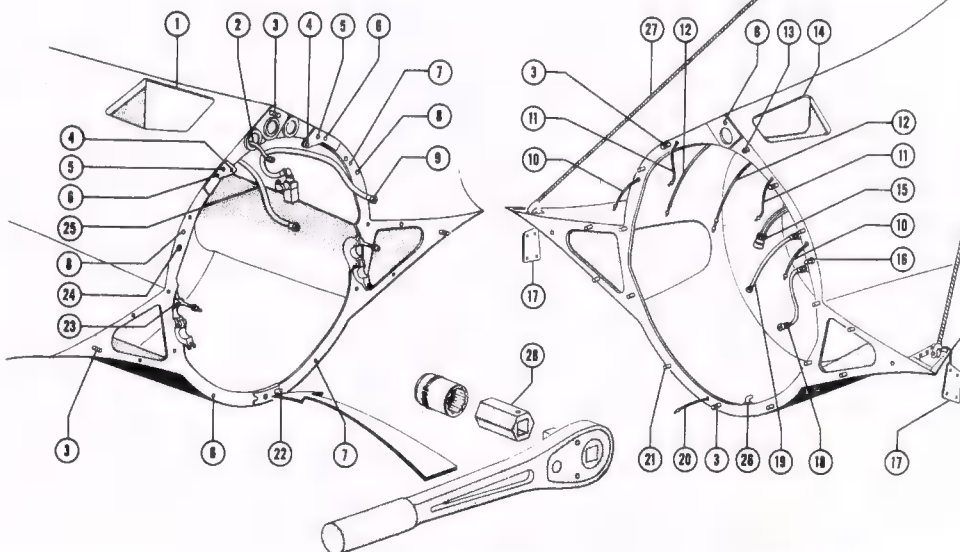


TAILHOOK AND TAIL SKID DEPLOYED



FUSELAGE TAIL SECTION REMOVAL

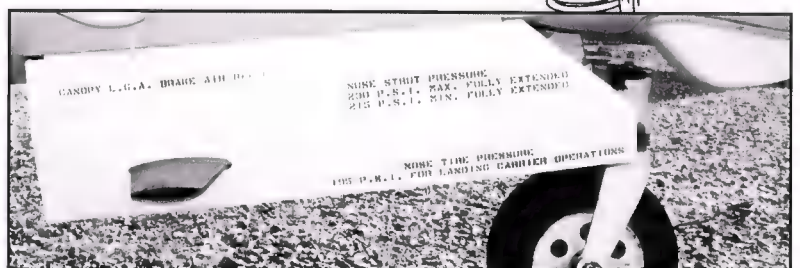
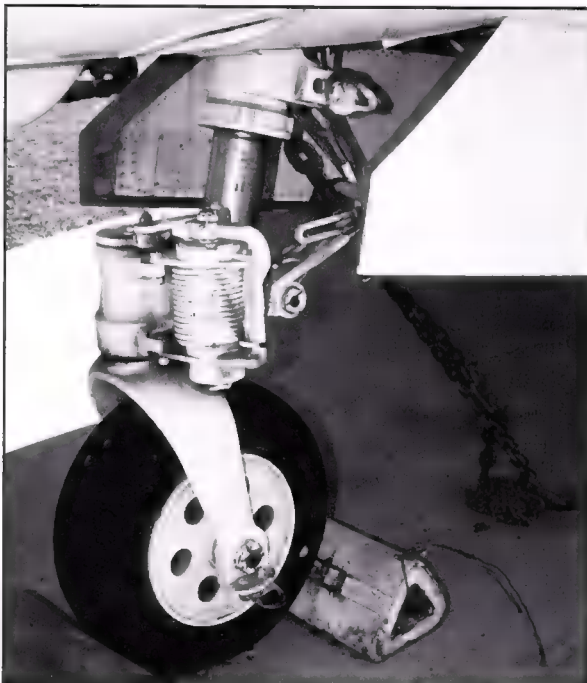
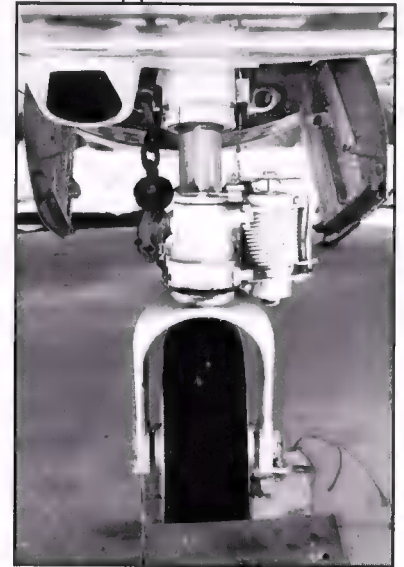
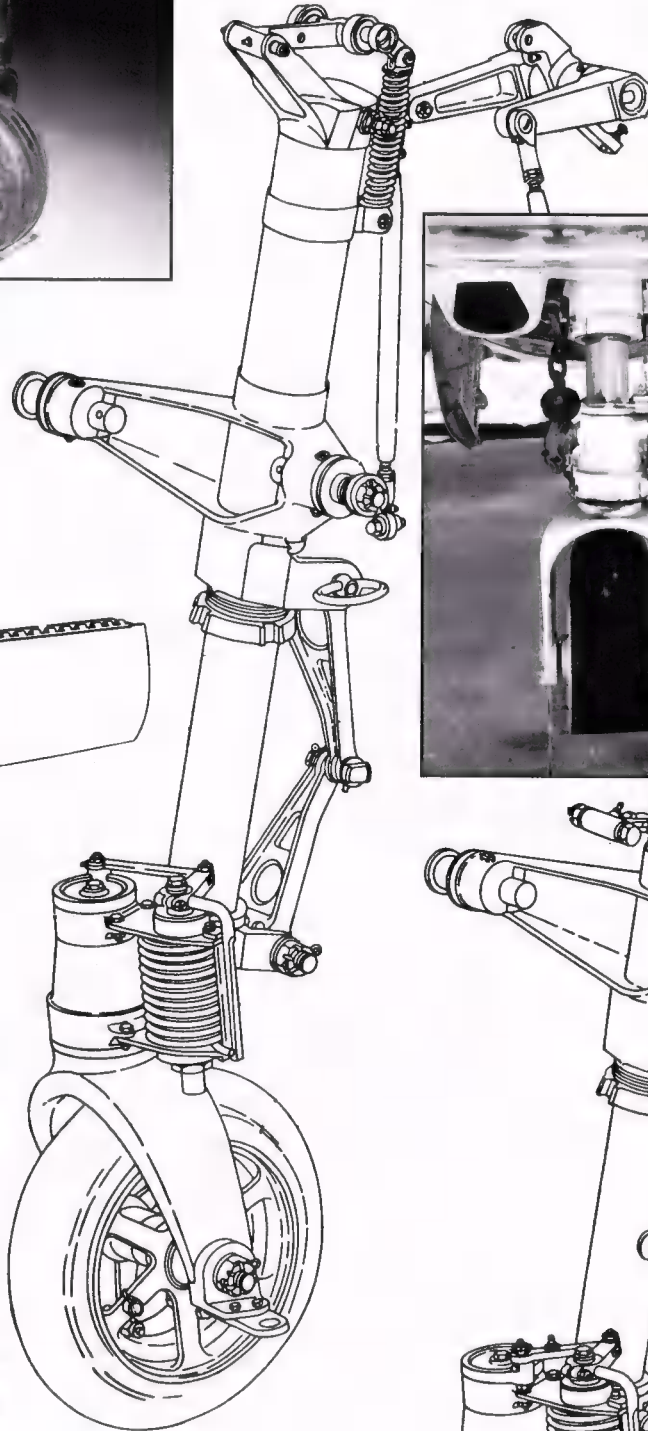
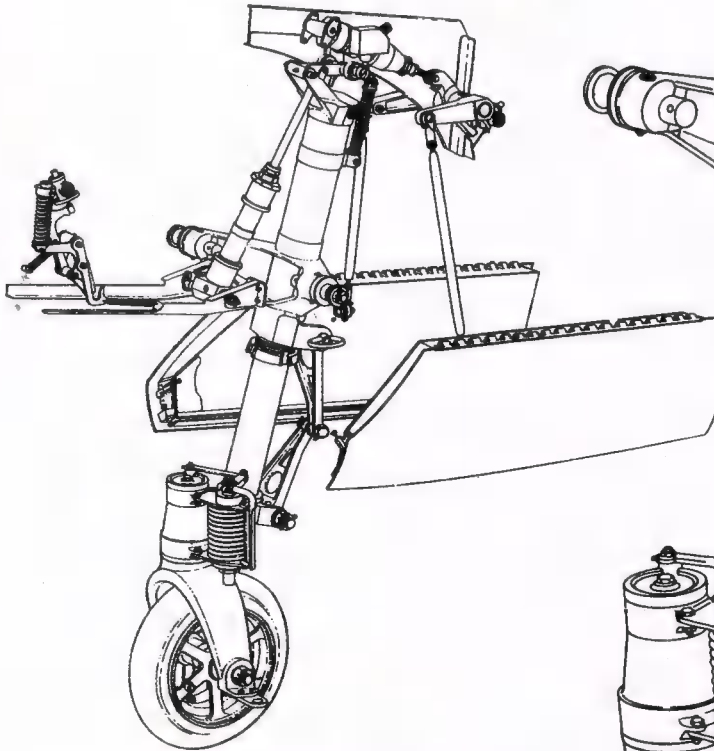
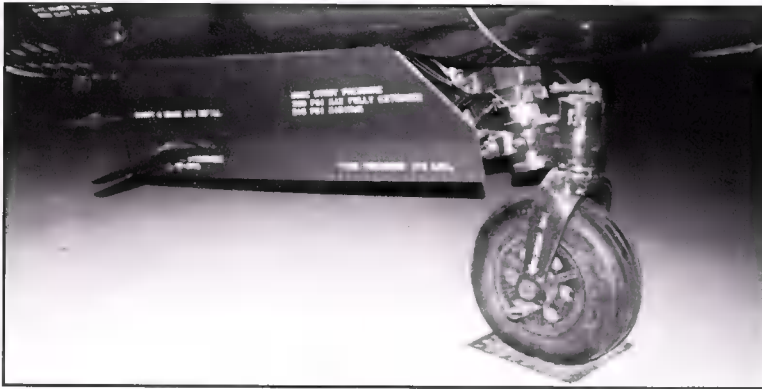
1. Forward Blow-in Door
2. Radio Antenna Coaxial Cable
3. Tail Section Attachment Stud
4. Hole for Elevator Down Cable (Yellow Dot)
5. Hole for Elevator Up Cable (Red Dot)
6. Tail Section Attachment Stud Hole
7. Guide Pin Hole (12)
8. Hole for Rudder Cable (Black Dot)
9. Water Injection Fluid Line
10. Rudder Cable (Black Band)
11. Elevator Up Cable (Red Band)
12. Elevator Down Cable (Yellow Band)
13. Radio Antenna Coaxial Cable Receptacle
14. Aft Blow-in Door
15. Electrical Disconnect Plug
16. Rudder Tab Square Drive Tube
17. Tail Removal Access Plate
18. Arresting Hook Raising Cylinder Hydraulic Line
19. Air Speed Static Vent Line
20. Arresting Hook Control Cable
21. Tail Section Installation Guide Pin (12)
22. Hole for Arresting Hook Control Cable
23. Engine Mount Fitting
24. Rudder Tab Square Drive Tube Attachment
25. Compressor Air Bleed Line
26. Combustion Chamber Drain Fitting (F9F-5 Airplanes Only)
27. GT-513 Tail Section Hoisting Sling
28. GT-508 Internal Wrenching Hex Socket Wrench



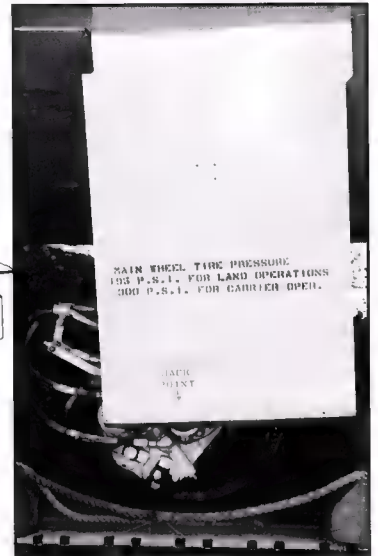
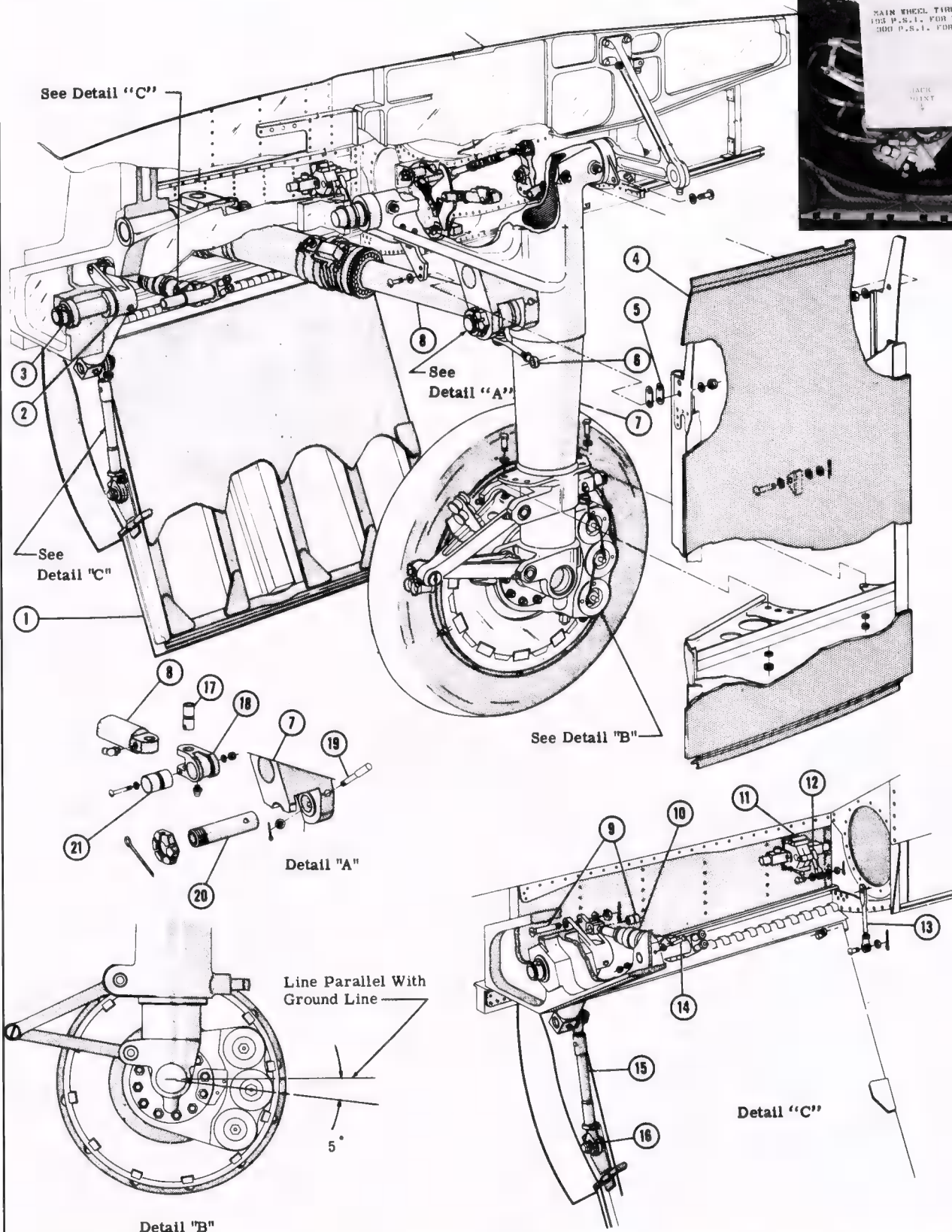
Note

1. Cables and accompanying holes in bulkhead are color coded as follows:
Red - Elevator Up Cables
Yellow - Elevator Down Cables
Black - Rudder Cables
2. Landing gear struts must be fully extended before removing tail section in order to set cradle under tail section.
3. Before installing tail section, see Caution, paragraph 2-314

NOSE GEAR



COUGAR MAIN GEAR



COUGAR MAIN GEAR



COUGAR TAIL SKID

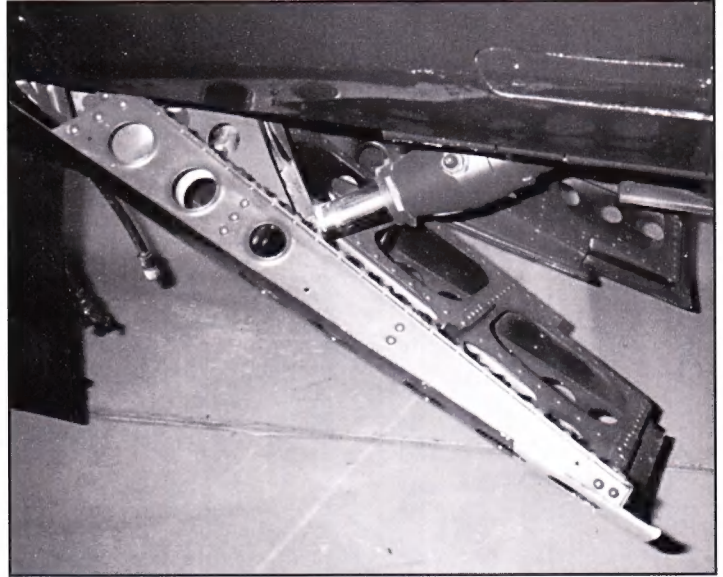
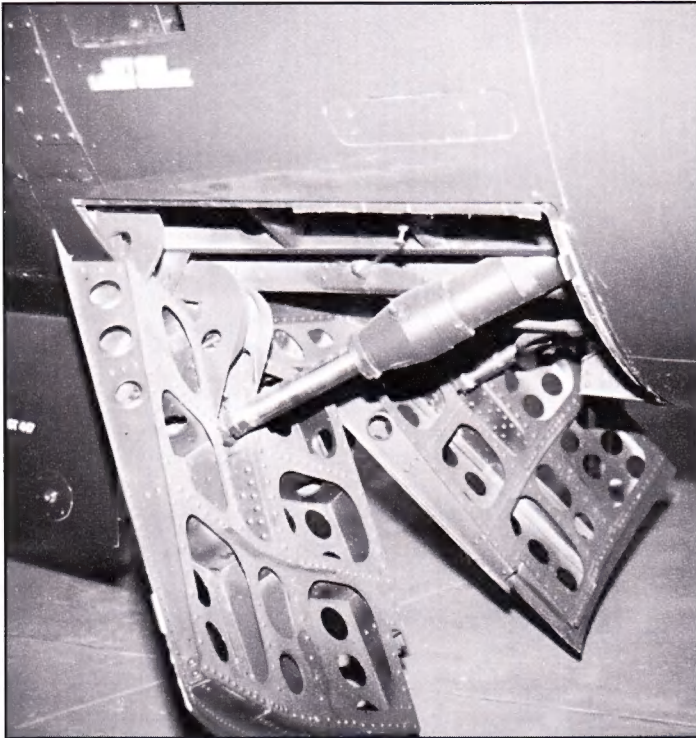


LEFT WING CONTROL SURFACES

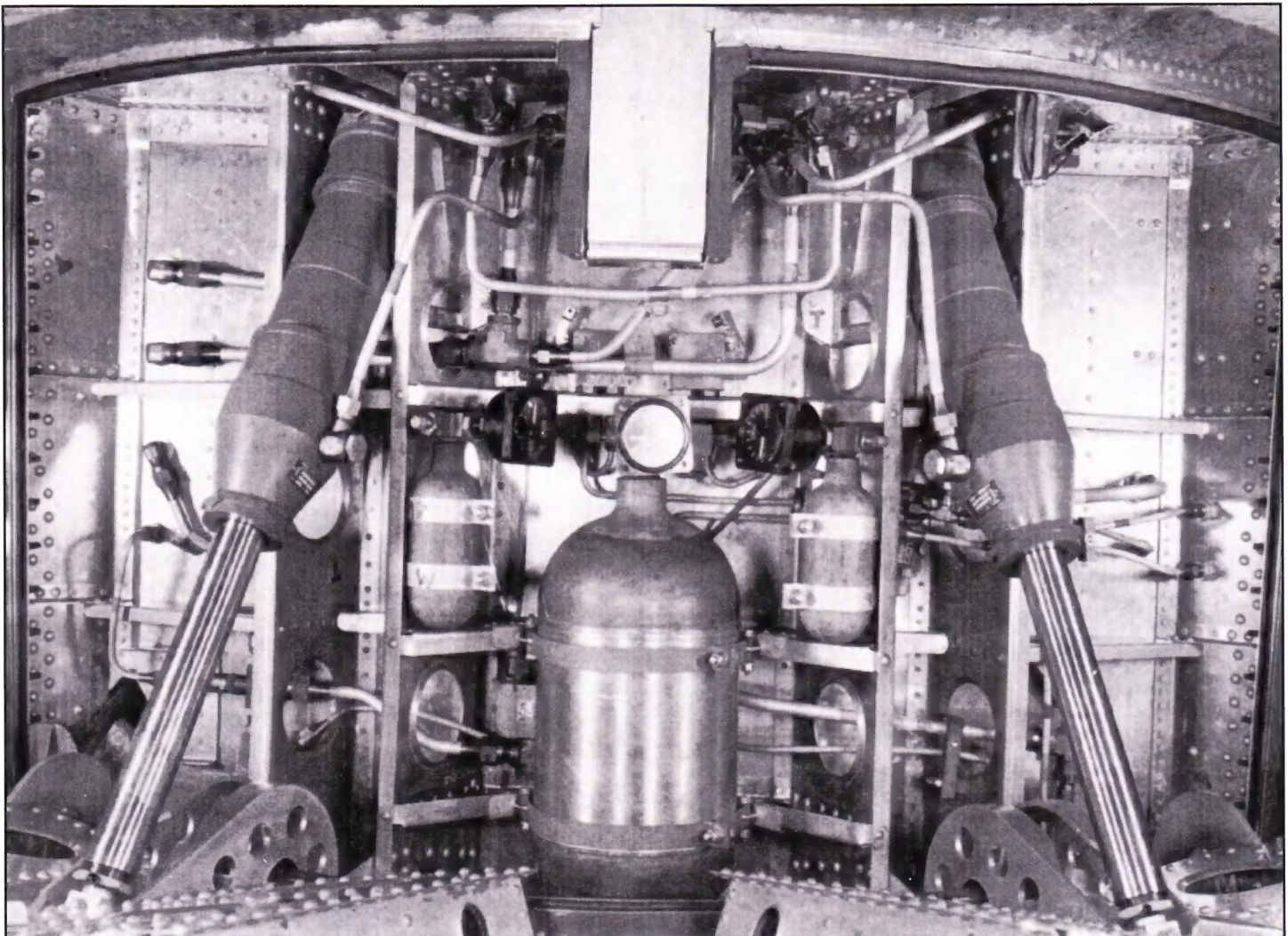
Above, F9F-8P Cougar main gear and door. (Ginter) At left, F9F-9P Cougar tail skid extended. (Ginter) Below, F9F-8P left wing control surfaces. Flaperette is partially open. Small control surface outboard of the flaps was only found on the left wing and was a trim tab. (Ginter)



FORWARD FUSELAGE SPEED BRAKES



At left, fully extended speed brakes and above partially extended speed brakes. Interior of the speed brakes were red. (Ginter) Below, speed brake well interior with speed brakes and actuators fully open. (National Archives)



COLLECT - AIRE RESIN 1/48 SCALE F9F-8/8P

Model by Lee Reinitz

COLLECT AIR MODELS:

The Collect Aire 1/48 scale resin F9F-8/8P kit is one of their finest offerings when finished. The kit comes with lots of resin detail parts as well as some metal parts too. Also included are poseable speed brakes, and flaps as well as optional drop tanks. Decals included are those for a VT-26 F9F-8, a VFP-61 F9F-8P and a Blue Angels F9F-8.

The company also produces a 1/48 scale resin kit of the F9F-8T/TF-9J two-seat trainer version of the Cougar. This version will be reviewed in the future book on that version to be released later in 2005.

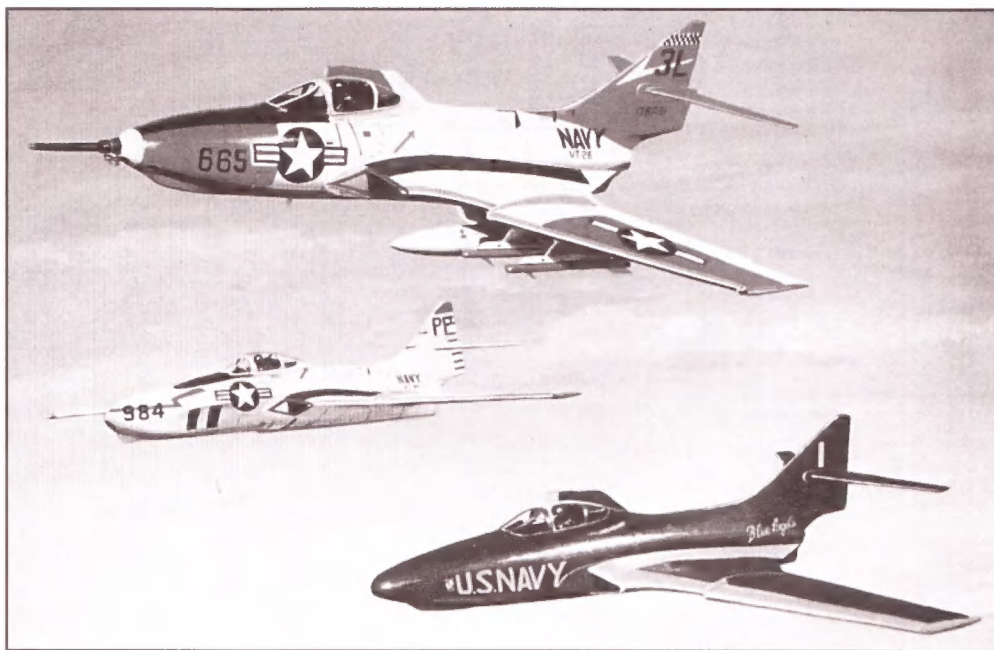
For the most part, the kit is excellent, and comes with great cockpit detail. Two glitches were too short main landing gear and slightly oversized camera compartment interior mounting framework. Due to the urgency in completing this kit for inclusion in this book, the cameras were not installed. The only other difficulty was the normal mating problems associated with cutting the fighter-nose off the fuselage and replacing it with the photo-nose. The decals provided in the kit are for F9F-8P BuNo 141695 while assigned to VFP-61 in 1961.

The kit can be ordered from Collect-Aire Models, 166 Granville Lane, North Andover, MA, 01845.

Phone: (978) 688-7283

Fax: (978) 685-0220

The 1970's Airmodel vacuform Cougar kit included parts for the F9F-8P photo-recon and F9F-8T two-seat trainer version. As with most Airmodel kits, if there is another choice, take it!



AIRMODEL 1/72 SCALE VACUFORM F9F-8/8P/8T KIT

